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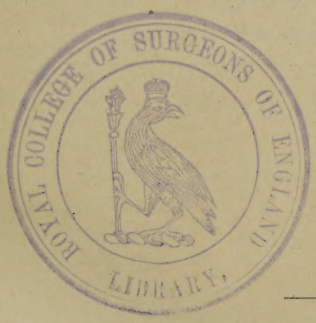

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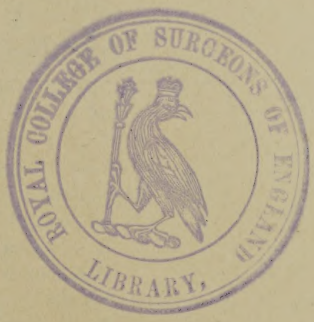

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PHILADELPHIA, OCTOBER 14, 1876.

ORIGINAL COMMUNICATIONS.

SOME PRACTICAL OBSERVATIONS ON THE DIFFERENTIAL DIAGNOSIS AND TREATMENT OF CROUP AND DIPHTHERIA.

BY WILLIAM S. STEWART, M.D.

Read before the Philadelphia County Medical Society, March 8, 1876.

GENTLEMEN:—In the early part of this season of interesting and instructive meetings of our Society, I had the honor of being present to hear our learned brother read a paper on the subject, "Are Croup and Diphtheria Identical?" which you will find published in No. 213, vol. vi., of the *Medical Times*. It is well worth its place in all our libraries.

After listening to the discussion which followed, the incredulity expressed, and the effects produced upon the minds of others, perhaps, as well as on myself, I thought the subject, in relation to the general practitioner, too important to admit of any doubts, and that it deserves to be discussed and re-discussed until we are assured of the true nature of both diseases, as we come in contact with them more or less every day.

I will not presume to review the ground gone over by my colleague in regard to the anatomical situations, the microscopic and chemical conditions, of the membranes formed; but rather trust in the evidence which we have when ushered into the chamber where all are anxiously intent on the announcement of the physician as to the nature of the disease that has already made an inroad in their happy home, and which, according to statistics, carries away so many of our dear ones.

In the discussion of this subject to which I have referred, the following language was used: "Probably only one out of twenty cases met with and considered as croup would really be that affection. A physician would see twenty cases of diphtheria before he would see one case of true pseudo-membranous laryngitis." If that is true, I fear there are many errors in the diagnosis of that disease.

I am disposed to think that there are as many cases of genuine croup to-day as there ever were. I am sure, however, that we are not called upon to treat all the cases that do occur, since almost every mother is able to recognize it in its inception, and, being apprehensive of its invasion, is always prepared to combat it with suitable remedies.

Another evidence of this fact is, when sent for to see a case, instead of being requested to see a certain one who is sick, the messenger says, Come quickly, for Johnny, or Mary, or whoever it may be, has the croup, which implies not only that they are familiar with the disease, but have probably exhausted all the various domestic remedies for its arrest.

It is not a rare occurrence to be called in to see some individual in a family where, the night previous, perhaps, some other member of the same family has had an attack of croup and was treated successfully without any physician.

I think it very probable that the majority of cases of croup are so treated.

This can only be accounted for from the fact of the frequent occurrence of the disease, and the unseasonable hour to call in a physician, and the necessity for prompt measures being at once adopted.

I wish, before entering upon the discussion, to refer to another remark made in regard to diphtheria. That is, "I think there is more diphtheria in the minds of the physicians than in the throats of the patients."

I hope that remark is not applicable to any of the members of the regular profession, as it certainly reflects either incapacity or deception, neither of which ought to be tolerated among the conscientious and scientific, but both of which are almost necessary to the irregular and the quack.

It is practical knowledge that is needed, with a great deal of uncommon good sense, in order to arrive at distinction in any profession or calling; and especially is it the case in our profession, when we are regarded as the oracle whose decisions and directions are immutable, and the superiority of our remedies appearing of too high an order to descend even to our own familiar language. It seems to be a necessity that we resurrect the dead in order that we may minister to the living.

There seems to be a heavy cloud of mysticism which ought not to hang over the medical profession of to-day. I think the time has come when the intelligence

of the community is sufficient to understand the what, the why, and the wherefore of our actions, and, consequently, could better appreciate the earnest efforts of the physician, and would not be so easily led astray by every new device that is placarded so as to allure the unsophisticated by its enticements. It is too true that in the allied profession there is much deception practised on the part of the doctor with his patients and friends, sometimes through ignorance and at other times by design, and from both causes, perhaps, are unwilling to give a disease its right name, but must magnify it so as to make the success of the treatment so astonishingly evident that its effects on the victim and his friends would be perfectly enchanting. Did you ever see such devotion as is exhibited by the converts to homœopathy? Is it not because "it is the God which they so ignorantly worship"?

In order, therefore, that the truth may be known, we must not only be educated ourselves, but we must be educators of those with whom we may be associated.

Before comparing these two diseases, I will first endeavor to define them separately.

Croup is inflammation of the trachea, which may extend up into the larynx or down into the bronchi. It occurs in young children after they are weaned, and is said to have a greater affinity for the male sex. The chief characteristic of croup is the formation of a membrane which lines the windpipe, the larynx, and bronchi as far as it extends. The gravity of the disease depends upon the obstruction produced by the membrane in respiration. The symptoms are generally ushered in after sunset or midnight; and it is presumable that the disease is produced by a sudden chilling of the secretions of the body.

The first indications of the disease are symptoms of catarrh, with sneezing, coughing, and hoarseness. It is the last symptom which is the signal for attention.

The cough is of a loud, ringing character, resembling somewhat the sound of a frog or the bark of a dog, and is so evident that one who has never heard it could not fail to recognize the symptom; this continues until the breathing becomes difficult and stridulous. If the disease were not promptly arrested, it would soon prove fatal to its victim. Other symptoms which accompany the disease are high inflammatory fever, flushed face, hot skin, thirst, frequent and hard pulse.

There is no morbid appearance in the pharynx nor difficulty in swallowing.

I will not stop here to describe true and false croup as distinct diseases, as both depend upon the same causes and have like symptoms. Suffice it to say that there are modifications in all diseases according to the constitutions which they attack, and the real difference is in degree rather than kind.

As to the symptoms of diphtheria.

The disease is ushered in with a chill, more or less fever, no cough, enlargement of the glands of the neck and throat; the patient complains of sore throat, difficulty in deglutition, pains and aching all through the system, indisposition from prostration. On examining the throat, we find white patches of membranous exudation deposited on the tonsils, it may be a swollen flabulous uvula, the whole cavity of the upper jaw generally dotted over with fine drops of clear exudation. Sometimes we find a long membranous band extending down from the posterior nares, which is soft but very tenacious. As the disease progresses, the whole of the throat becomes involved. Not only does the uvula become covered, the roof of the mouth, the tonsils, the back part of the pharynx, but the disease extends up through the posterior nares until the whole passage-way of the nose is almost if not altogether closed.

The putridity of this membrane when left undisturbed is very offensive, and has a characteristic odor which, to a person of an acute organ of smell, can be recognized in entering the chamber.

I think it is, in my experience, as easily detected on first visit as the odor of a well-developed case of variola.

I wish particularly to call your attention to the fine drops of exudation, perhaps the size of a pin's head, which are frequently found dotting the upper and posterior part of the mouth, resembling somewhat drops of perspiration.

This is, to me, a certain indication of diphtheria. I have seen cases, where that condition was left undisturbed, and the deposit kept developing until the drops coalesced and united into one coagulated band that extended over the entire roof of the mouth with such evenness that it would

evade your closest scrutiny were your attention not especially directed to it or you apprehensive of such a condition.

In contrasting the two diseases we find the following dissimilarity:

Croup is ushered in by a cough.

Diphtheria by a chill.

Croup is most frequent when there is greater humidity in the atmosphere and the east wind is prevailing.

Diphtheria does not depend upon meteorological changes.

Croup is not contagious.

Diphtheria most decidedly is.

Croup comes on suddenly.

Diphtheria may be tardy.

Croup is recognized by the croaking sound.

Diphtheria is known by the patches of membrane on the throat.

Croup must be promptly relieved.

Diphtheria is tardy in its resolution.

Croup does not affect the system.

Diphtheria is very prostrating.

Croup occurs most frequently in childhood and from two to five years.

Diphtheria occurs at all ages.

Croup is apt to occur very often in the same case.

Diphtheria may occur more than once in the same case, but the patient is not so liable to a second attack.

I might add also the contrast in the chemical condition of the urine and the blood, but, as that was referred to in Dr. Welch's paper, I will simply mention that the urine is not affected in croup, but in diphtheria it becomes albuminous. So also in the blood there may be an increase of a normal constituent, fibrine, in croup, but in diphtheria there is a morbid condition of the blood not determined by increase of a normal constituent, and produced only by a poison in the system. In consequence of the above conditions there are no offensive exhalations arising from croup, which are very manifest in diphtheria.

It is seldom that both diseases occur in one person at the same time. In the month of October, 1875, I was sent for to see Rebecca M., aged five years, who had been a subject of frequent attacks of croup, and who had not then entirely recovered from an attack, but was suddenly taken with new symptoms,—chilly sensations, sore throat, prostration, etc. On examination I found very manifest evidence of diphtheria. I immediately mopped off her throat with the liquid persulphate of iron diluted, cleaning the membrane, which had already formed on her tonsils, entirely away. I returned again in the evening. The membrane had not reformed. She appeared to be much better, and consequently I did not apprehend any further difficulty. But the next morning I was summoned to see her again. I found her gasping for breath. I at once examined her throat, but could find no membrane. I soon discovered that her croup had reappeared, and to an alarming extent. I administered promptly remedies for her relief, but with no avail. It became evident that if she was not soon relieved she would die, as her breathing was very difficult and laborious, and her body was turning dark from the blood not being properly oxygenized. I at once sent for my friend Dr. Drysdale, who responded promptly, and, after consulting together, resolved that nothing further could be done except tracheotomy, which, when done, gave instantaneous relief, and a perfect recovery without an untoward symptom.

I mention this case as one of interest to the profession, which leads us to the conclusion that neither disease is sufficient in its alliance to the other to prevent an attack of both at the same time.

As to the treatment of croup.

I will mention those remedies which are most frequently used, and which generally prove successful, with a view to show the contrast of these two diseases throughout, rather than to hope to benefit you by any new suggestions. The first effect which we most desire is free emesis, which, if taken in time, gives instantaneous relief.

Among the various remedies, first and mildest is ipecacuanha, either alone in powder or syrup, or combined with tartarized antimony. Mustard is very efficacious, the pulverized sinapis of the Pharmacopœia, in teaspoonful doses given in water. The various nauseating oils are resorted to, often with good effect. Last, and perhaps best of all, is powdered alum and syrup, equal quantities of each, given for effect, it may be in teaspoonful doses every five minutes, until free vomiting of the membrane is produced.

When the emetics do not prove satisfactory, cathartics and absorbents are resorted to. Calomel and soda are very beneficial combined together in small doses and frequently repeated. Local applications

in croup are very efficacious. Perhaps after the first emetic the child should be put in a warm bath of about 96°, containing salt and mustard, and, after remaining about ten minutes, taken out, wiped dry, and wrapped up in warm blankets.

The counter-irritating action of mustard, if taken early in an attack, acts almost like a charm in its prophylactic effect.

Spiritus terebinthinæ is also well worth resorting to, both as an irritant and resolvent in the rapidity with which it is absorbed into the system. Blisters are not necessary nor considered efficacious, as being too slow in their effects. After all the prompt appliances have produced as much irritation as is tolerable, an after-application of an unctuous nature, such as lard and snuff combined, should be worn over the breast for some time, as the disease frequently manifests a disposition to return about the same time, for three or more successive days.

The patient must be carefully guarded against any change of temperature or vicissitude that might provoke a return of the disease.

After the choking paroxysm of the disease has passed away, the patient should take an expectorant to allay the remaining irritation and cough. Perhaps as good a combination as might be suggested for this purpose would be a mixture containing equal parts of syrup of senega, squills, ipecacuanha, acacia, and paregoric. In a few days all the symptoms will disappear and the patient will be well and hearty.

As to the treatment of diphtheria.

I will not stop to enumerate the long list of remedies used, but will confine myself to the method which I have adopted, and with such evident success that I feel glad to announce to any of you who have not followed the same line of treatment that you will be compelled to say, "Eureka." I am sure I feel quite as enthusiastic in the success of the treatment which I propose to lay down, as one of our number is in the treatment of variola with milk-punch and egg-nog.

If you are permitted to see the patient within the first few hours of the attack, commence your treatment at once with quinine and aromatic sulphuric acid, in doses suitable to the age of the person receiving it. Give freely of solution of chlorate of potassa, as a disinfectant, and perhaps you will not be required to administer any other remedies. If, however, the membrane has become so thickly deposited as not to be affected by the acid and chlorine, you should apply with your own hand a mop (properly made) saturated with the liquid persulphate of iron, and literally swab out the throat until you remove every particle of membrane. Let this be repeated two or more times each day, or as often as the membrane would continue so to be reproduced, and you will have the satisfaction of seeing your patient make a speedy recovery without any of the consequent sequelæ.

I took my first hint of the sulphuric acid treatment from a short extract which I clipped from a paper coming from a doctor in Australia, where the disease was producing such extensive ravages that the government offered a large reward for any certain method of cure. I will quote from the paper:

"It is simply the use of sulphuric acid, of which four drops are diluted in three-fourths of a tumbler of water to be administered to a grown person, and a smaller dose to children, at intervals not specified. The result is said to be a coagulation of the diphtheritic membrane and its ready removing by coughing. It is asserted, where the case thus treated has not advanced to a nearly fatal termination, the patient recovered in almost every instance."

This suggested to me the treatment which I have already announced; and from the experience of entire success which I have had in the last two years in not having one fatal case during that time from that disease, where I had the treating of the case from the beginning, I do not hesitate in declaring it as my opinion that quinine as an eliminator of the poison from the system, and sulphuric acid as a detergent to the throat, are decidedly as much a specific for diphtheria as quinine is for intermittent fever, or iodide of potash and bichloride of mercury are for tertiary syphilis.

Without delaying you any longer, let us contrast the treatment of these diseases.

In croup we must adopt prompt measures in the beginning of the disease.

In diphtheria it is not always evident in the first symptoms what the disease will be.

In croup emetics are indicated.

In diphtheria emetics are too prostrating.

In croup counter-irritants are very essential.

In diphtheria counter-irritants are of no avail.

In croup no topical applications are made to the membrane.

In diphtheria mopping off the membrane is a necessity.

In croup expectorants are required.

In diphtheria they are not needed.

In croup depressants are given.

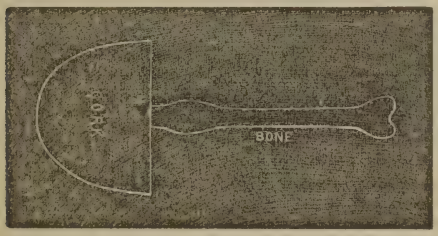
In diphtheria stimulants are required.

And so we might go on, pointing out the separate and diverging routes of both diseases, until we reach the limit of our ability, the fiat, "Thus far shalt thou go, and no farther."

A NEW INTRA-UTERINE PESSARY.

BY E. S. LANSING, M.D.

I OFFER to the profession a new intra-uterine stem. In this instrument the objection to all others I have used, of fretting the lining membrane of the uterus, is obviated. Also the liability to drop out or be forced out of the uterus is fully met and overcome, as experience has proved.



The stem is of bone, smoothly worked (I took the handle of an old tooth-brush), the uterine end shaped like the cavity of the uterus, triangular. The bulb is of cork, hemispherical in shape, and attached to the stem by a wire passing through it and into the stem. The cork or bulb is covered with *rubber*, making it impervious to the secretions of the vagina. To accomplish this, I used the rubber cement used by shoemakers in cobbling. The shape of the uterine end prevents injury to the mucous membrane, and assists in retaining it in situ. The circular muscular contraction of the vagina, acting upon the hemispherical bulb, forces it up against the neck of the uterus. By using a small sea-tangle tent before inserting the stem, it is readily introduced. In extracting it, the uterus should be supported by the finger.

I have used this in a case that gave me great annoyance, and in which all other appliances and treatment had failed, and it proved a success. My patient was able to attend to light duties incident to housekeeping, with no inconvenience to her during its use, which I attribute to its being retained exactly in place.

Exact measurement should be made in each case, and the stem made to fit.

BURLINGTON, N. J.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. GROSS, SEPTEMBER 27, 1876.

Reported by WILLIAM A. JOHNSTON, M.D.

DISLOCATION OF THE HIP-JOINT IN A CHILD SIX MONTHS OF AGE.

GENTLEMEN,—Upwards of six years ago, this child, M. S., æt. 7 years, from Oil City, Pa., had a fall, the exact history of which I am unable to obtain. Since that time the left hip-joint has presented the deformity which you observe as the little patient lies before you. You notice that the nates of the injured side is flattened, and much broader than the opposite one. You also notice that the great trochanter is very prominent, and in much closer proximity to the anterior superior spine of the ilium than naturally. The gluteo-femoral crease is much higher than common.

A line drawn from the anterior superior spinous process of the ilium to the tuberosity of the ischium, in the natural state, leaves the great trochanter below that line. The contrary of this is true here. This method of measurement, first suggested by Nélaton, is a valuable one. Again, you observe that the limb is rigid, and that there is a strong tendency to inversion of the knee and foot, and by measurement the injured limb is found to be one and three-quarter inches shorter than its fellow. Now, what is the diagnosis? The symptoms point unmistakably to dislocation of the head of the femur upon the dorsum of the ilium. To recapitulate, what are these symptoms? The unusual prominence of the great trochanter, and its close proximity to the anterior superior spine of the ilium, the peculiar deformity, the unusual fulness of the upper part of the thigh, the higher plane of the gluteo-femoral crease, the shortening of the affected limb, and the inversion of the knee and foot.

In fracture there is shortening, but it is effaced by extension and counter-extension; and in fracture of the neck of the femur within the capsular ligament, as seen in old persons, there is eversion instead of inversion, and the trochanter is drawn posteriorly and is less salient. The health of this patient is good, and there is no history of a scrofulous taint; hence the case is not one of coxalgia.

There are several varieties of dislocation of this joint, but the iliac is by far the most common. This injury is next in frequency to luxation of the shoulder-joint, and is most common between the ages of thirty and forty-five years. The occurrence is very rare in the young, because the force calculated to induce such an injury would rather lead to separation of the epiphysis of the bone, owing to its imperfect development and consequent inability to resist external injury. It is uncommon in the old, because of the brittleness of the bone, which renders it more liable to fracture. The case is a remarkable one. I have never seen this form of dislocation at this age, and I do not think there is a similar one on record. Several cases occurring at the age of twelve and eighteen months have been reported.

Now, gentlemen, you ask me what is the treatment in this case, and I emphatically tell you there is none. It is useless to make an attempt at reduction. There is no acetabulum. The natural cavity has been absorbed and filled up.

TRANSLATIONS.

Foreign Bodies in the Œsophagus.—At a recent meeting of the *Société de Chirurgie*, Guyon reported the case of a man twenty-three years of age who swallowed a silver five-franc piece. An emetic was administered a few hours later without success. On sounding the œsophagus the next day, repeated acts of vomiting followed. Swallowing caused a fixed pain in the neighborhood of the larynx. A few days later the exact position of the foreign body was ascertained by a resonating sound, and it was extracted. External palpation and larnygoscopic observation had failed to indicate the position of the coin.

Sée had observed a case of foreign body in the œsophagus which gave rise to serious suppuration in the mediastinum. A child had swallowed a steel pen, which lodged in the lower part of the pharynx. In attempting to remove the pen it slipped and fell into the œsophagus. Some days afterwards it was ejected in vomiting. In spite of this, dysphagia, fever, and vomiting continued. The child became extremely emaciated, and ejected quantities of fetid pus. Under the use of chloral the child recovered after some time.

Giraldis remarked that in using Graefe's instruments for the extraction of coins from the œsophagus in children, not under the influence of chloroform, the coin may fall crosswise and give rise to bad consequences. By the use of anæsthetics, the extraction of such bodies may be rapidly and easily accomplished, with the aid of Graefe's instruments. For that reason Giraldis always uses anæsthesia in these cases. Paulet said there is one point where almost all blunt bodies, too large to fall into the stomach, are apt to stick. This is just behind the cricoid cartilage, at the cricoid sphincter.

In such cases as Guyon's, when extraction could not be accomplished, this is the point at which œsophagotomy should be practised. Pointed, rough bodies may lodge at any point; their situation, however, can be ascertained by external palpation, which causes pain.—*Centralbl. f. Chirurg.*, 1876, No. 23. X.

Extirpation of the Entire Larynx, with Favorable Result (Bottini: *Centralbl. f. Chir.*; from *Giornale della r. Academia di Medicina di Torino*, 1875, No. 14).—Bottini displayed at a sitting of the Academy the patient, the preparation, and a galvano-caustic knife of his own invention.

The patient, twenty-four years of age, suffered from sarcoma of the larynx. He had begun to suffer fourteen or fifteen months previously from attacks of dyspnœa,—at first slight, later severe,—due to stenosis of the larynx. Tracheotomy was performed for the relief of these symptoms. At the time of this operation examination with the laryngoscope showed fleshy masses which filled the entire glottis, and through which the patient could only with difficulty force the breath. The application of caustic for enlarging the rapid increase of the growth caused the lumen of the passage to result unsuccessfully. Bottini found, somewhat later,

granulation-like, easily-bleeding vegetations of the glottis, which could be drawn by the tenaculum into the cavity of the larynx; he diagnosticated sarcoma, and recommended the galvano-caustic. An opening was effected, however, by means of a tin sound, which remained patulous during several months. Laminaria tents were attempted, but could not be borne, and in a few months matters were as bad as before: the tumor was harder; no air could pass through the glottis. Finally, an operation being decided upon, it was carried out, as follows:

An elastic canula having been introduced into the trachea, local anæsthesia was established by Richardson's apparatus. A median incision was made, extending from the hyoid bone to the opening into the trachea. At either end of this, cross-incisions were made to the inner boundary of the sterno-cleido-mastoidei, thus giving two rectangular flaps. The larynx was separated from the surrounding tissues and removed without difficulty, but the retraction of the parts caused compression of the vagi with threatening dyspnœa and orthopnœa. Bottini was obliged to divide in the greatest haste the conoid ligament and separate the cricoid and thyroid cartilages, thus giving rise to hemorrhage and fainting on the part of the patient. Finally, however, the bleeding was stopped by ligature and galvano-caustic, and the patient recovered. Bottini showed to the members of the Academy a galvano-caustic knife which in future operations might prevent excessive hemorrhage. X.

Cases of "Leukæmia."—F. Schmuziger (*Centralbl. f. Chirurgie*, 1876, No. 24; from *Arch. der Heilk.*) describes two cases of leukæmia lymphatico-lienalis (et myelogena) observed at the medical clinic in Zurich and carefully examined post mortem. One was that of a woman, forty years of age, in whom the disease had not reached the second stage, when she succumbed to an apoplectic seizure. The other was that of a boy of eleven years, in whom the disease had passed the second stage. The conclusions drawn by the author are of interest in connection with the question whether the white blood-corpuscles are not formed and supplied from the marrow and not the spleen.

X.

Catheterization of the Larynx in Diphtheria and Croup (Hüttenbrenner: *Jahrbuch der Kinderheilkunde*, Bd. viii., Hft. 1 and 5).—After a description of the method of operating and the difficulties and impediments met with, H. formularized his conclusions as follows: 1. At every introduction of the catheter into the larynx, circumstances may occur which may asphyxiate the child. These may be due to a want of proper assistants, to the difficulty of the introduction itself, or to the loosening of pieces of false membrane, which cannot be expelled, and which fall into the trachea. 2. Continued catheterization is injurious, since it by no means does away with the necessity for tracheotomy, and calls for great exertion of the muscular powers of the child. 3. Injuries of the mucous membrane of the mouth by the introduction of the wedge needed to keep the mouth open can scarcely be avoided, and thus bleeding surfaces are formed, which in a few hours are covered with exudation. 4. Its effects are but temporary. 5. The proper performance of the operation calls for numerous trained assistants, and they are not usually readily procurable in private practice. 6. Catheterization of the larynx can be only once performed, and then only when death is imminent, for the purpose of gaining time. Except for this reason, the operation should not be performed in the treatment of croup, since it by no means does away with the necessity for tracheotomy. W. A.

Action of Anæsthetics on Muscles and Nerves (Conley: *Centralblatt für Chirurgie*, 1876, No. 28).—In order to ascertain the action of anæsthetics on the muscles and peripheral nerves, C. killed many animals by various methods. He found that when death was produced by ether, chloroform, or chloral, the physiological properties of nerves and muscles were preserved much longer than when death was due to other causes. The most noticeable in this respect was the action of chloral. According to his view, the reason of this symptom must not be sought in the action of the anæsthetics on the spinal cord, but in a direct modification of the muscular and nervous elements through the blood. He thinks that this action is similar to that seen in poisoning by carbonic oxides. W. A.

Osteotomy in the Treatment of Rachitic Curvatures (J. Guérin: *Bulletin de l'Académie de Médecine*, 1876, No. 141).—In reference to a communication of

Boeckel's in reference to thirty-four cases of osteotomy, among which were some operations on account of rachitic deformity, G. alludes to the fact that he as early as 1843 called attention to the favorable results attending such operations in cases of this class. He distinguished two methods of operating,—osteoclasy, indicated only while the bone is still soft, and osteotomy. When the bone is soft it can readily be broken and made straight, and consolidation follows under the influence of ossification, which soon occurs. Later, when the bones are firm, and even denser than healthy bone-tissue, subcutaneous osteotomy must be resorted to.

In cases in which there is a sharp angle due to previous fracture of the diseased bone, he chooses a time at which there is still to be found as the remains of the old callus an elastic tissue which has not been ossified. Guérin's method of operating is distinguished from that of his imitators by the fact that he operates only at the time named above, they at all times; and he also makes a subcutaneous section of the bone, while they cut out a piece with chisel and mallet, and so shorten the bone. W. A.

Cæsarean Section performed on account of Carcinoma of the Cervix and Vagina (Tauffer: *Deutsche Med. Wochenschrift*, 1876, No. 8).—This operation was followed by a fatal result, but the results of the post-mortem examination, which demonstrated the unreliability of catgut for uterine sutures, are of special interest. The patient died on the third day after the operation, and the following conditions were found. The body was but slightly distended, the wound of the abdomen was almost entirely united, and in the abdominal cavity was a quantity of fluid and clotted blood. All the organs were hard and anæmic. The uterus was well contracted; the edges of the wound in it were gaping, and covered with clots. The catgut threads on both sides were still present in the tissues, but the knots upon them were either loose or had slipped and formed wide loops. Peritonitis was not found. The cervical portions of the uterus and the vagina were filled by a grayish-white, hard, stinking mass, which had to some extent undergone a cheesy degeneration. Death had been due to hemorrhage, which the catgut sutures had failed to control. W. A.

Treatment of Hypertrophy of the Prostate (Dittel: *Centralblatt für Chirurgie*, No. 27, 1876).—Dittel takes issue with Thompson as to the method of treatment recently advised by him in those cases of prostatic hypertrophy in which urination is interfered with and the almost constant use of the catheter is indicated. He asserts that this mode of treatment is not new, and that the preparatory incision into the abdominal cavity is unnecessary, and ought only to be used in very fat patients. The determination of the size of the prostate during life, when it is not excessive, is not possible, and on this account changes in its size are ascertained with difficulty. It is difficult also to decide whether we have to do with hyperæmic or hypertrophic enlargement of the gland; and this too renders an accurate determination of the results of treatment still more difficult. Dittel alludes also to the parenchymatous injections advised in the same affection by Heine, and says that he himself has by this method never caused improvement, but has frequently seen acute prostatic infiltration and suppuration caused. W. A.

Morbus Basedowii (R. Rösner: *Centralblatt für die Medicinischen Wissenschaften*, xxi., 1876).—Among the six cases of this disease, of which very minute histories are given by R. Rösner, two of them (both patients were women) are especially worthy of notice, inasmuch as the symptoms of the disease were preceded by definite symptoms of an affection of the sympathetic system.

The patients suffered from hemicrania and a neuralgia mesenterica or enteralgia, causing pains in the abdomen, followed by purging, and this in turn by entire relief. One of the patients also suffered from typical urticaria. W. A.

Traumatic Tetanus (Kretschy: *Wien. Med. Wochenschrift*, 1876, No. 19).—The patient had wounded the last phalanx of the fourth finger with a piece of glass, and after cicatrization had taken place, and sixteen days after the injury, tetanic attacks began. These attacks became more severe, and were caused by pressure on the scar, by loud talking, etc., and lasted about thirty seconds. On the tenth day, the injured phalanx was amputated, and four days later all the symptoms had disappeared. Nothing was found in the cicatrix which would account for the occurrence of tetanus. W. A.

MEDICAL TIMES.

PHILADELPHIA, OCTOBER 14, 1876.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

THERE has rarely, if ever, been a stronger contrast than that offered by the two medical congresses which met here during the past summer. The National Association accomplished nothing; indeed, might almost be said to have been nothing —worthy of being. The International Association accomplished a great deal, probably as much as any similar body that ever met, and was almost everything that could be desired. There can be no doubt that the American Medical Association fell below its usual average in the character of its members, because many of the most noted, not being able to attend both meetings, preferred the international assembly. Still, if the Louisville Convention of last year be compared with the September meeting of this year, the result is immensely in favor of the latter. Very many times has the question been asked, "Why cannot we have such meetings of the American Medical Association?" and to every well-wisher of our national body the answer still remains a serious matter. There can be no doubt that the foreign members of the international meeting, although comparatively few, lent a great deal of dignity and force to the body. True is it, also, that the peculiarity and rarity of the occasion, and the hope of meeting distinguished foreigners, aided greatly in drawing the *élite* of American physicians. Nevertheless, the comparative failure of the National Association is so great that some other causes for the superiority of its rival must be sought. Such causes seem to us clearly to have existed in the manner of organization of the International Congress, and chiefly in the pre-existence of a definite, earnest, executive body, who prepared a most wise programme of action, and announced sufficiently beforehand the subjects to be discussed, the names of those who were to open the discussions, and the chief points to be made in the respective openings.

Dr. Jones may have little interest in medical congresses, but he is burning with enthusiasm concerning sewer-traps, puerperal fever, or some other subject, and rouses like a lion from his apathy when he learns that Dr. Smith is to lead off upon his favorite theme.

It is plain that the definite announcement of papers upon fixed topics by men of acknowledged rank is far more likely to attract than the expectation of volunteer articles by medical nobodies. Further, very few men are prepared to discuss any serious question usefully without previous warning or preparation.

If any lesson is to be drawn from the experience of September for the guidance of the "fathers" of the American Medical Association, it is the necessity of a well-selected body of men, a committee or a commission, who shall supervise, or rather prearrange, that which is to be done at the convention, and who shall announce sufficiently the precise character and personnel of the work and workers. The organization of the commission which prepared for the International Congress was twofold. The General Commission arranged the general plan of the work and then formed committees on Sections, which prepared the work to be accomplished by their respective Sections. The general plan for the transaction of business should be stereotyped by the American Medical Association, and, consequently, committees on Sections are all that would be required from year to year to arrange each winter for the following summer's meetings.

In another column, under the head of "Notes and Queries," we print a plan

which originated with a well-known, although for the present nameless, member of the Association, and which appears to meet the requirements of the case. Objection might be taken to some of its details, but these could be modified as seems best after discussion. The opportunity of raising the Association to a position worthy of the country by the application of these rules seems to be so good that we sincerely hope that Professors Gross, Davis, or other of the mighty men will take hold of the subject with vigor and determination.

A CURIOUS instance of the depth and breadth of the feeling produced in England by the Turkish atrocities is found in the circumstance that the London *Lancet* of September 16 has a political leader of nearly a page in length on the subject.

CORRESPONDENCE.

LONDON LETTER.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

THE great heat which prevailed some weeks ago has given place to an autumnal chilliness, which has lighted many drawing-room fires, so that there has not been an opportunity for testing your views as to the pathology and treatment of summer diarrhœa. Your leader of August 5 has attracted a good deal of attention here, and, so far as I can learn, there is full agreement with what you have written. The matter, indeed, has come home to many who suffered during the recent intense heat from diarrhœa for which they could not account. The associations of intense heat and diarrhœa are too palpable, when once they have been pointed out, to escape recognition. The observations of G. C. Comegys have indeed laid the laity as well as the profession under a debt of gratitude to him.

The other matter of your leader, viz., the thermic relations of heat-apoplexy, is in perfect accord with the observations of Indian practitioners. The treatment of this condition by ice and cold baths is doubtless very satisfactory where such measures are at hand. They are, however, unattainable for cases occurring among troops on the march; and in cases of heat-apoplexy occurring then it has been found a good practice to use subcutaneous injections of quinine. By this measure a number of recoveries have been secured in very severe cases. This plan originated with Surgeon Major A. R. Hall, of the Royal Artillery, and not only has it been found successful in India, but a case was recorded recently where a patient, stricken down with heat-apoplexy, at Bath, was so treated with perfect success.

Surgeon Major Hall is known to the profession by his advocacy of the treatment of cholera by vascular depressants. Not only had he seen much of this malady in India, but he underwent a severe attack himself. From his varied experience he arrived at the conclusion that the commencement of the morbid process was severe spasm of the muscular walls of the arterioles, by which the pulse was almost obliterated while the heart was acting tumultuously and forcibly; the spasm in the renal and hepatic vessels cutting off the urine and the bile, while the fluids of the blood were squeezed out of the portal section of the venous system, as the point of least resistance. Having come to this conclusion, it seemed a rational practice to administer chloral hydrate, whose power to relax and dilate the peripheral arterioles had recently been demonstrated. This was done, subcutaneously, with very satisfactory results, even during a rising attack of cholera, the most severe test to which it could be subjected, not only by Mr. Hall, but by others. His views have met with much approval by many here who are competent to judge in the matter, and are valuable from their physiological bearings. Surgeon Hall is now under orders for India, where he is to give his plan a thorough trial, and test further the efficacy of the chloral hydrate, as well as nitrite of amyl inhalations, calabar bean, and other vascular depressants, in cholera.

The schools are all preparing for another winter campaign, and as the different addresses will probably furnish the material, to a large extent, at least, of my next letter, this one will be taken up chiefly with practical subjects.

Dr. Brown-Séquard has lately been delivering a number of lectures on the nervous system and its affections, at the Royal College of Physicians, and elsewhere. They have, as a matter of course, been attended by large numbers of the profession; but his views have not met with that hearty reception which greeted them of yore. This great physiologist of the nervous system advocates and promulgates views so very different from those held by the leading authorities on it of the present day, that there is considerable hesitancy exhibited in accepting them.

One of the most troublesome and irritating ailments which is brought under the practitioner's notice is the not uncommon one of pruritus vulvæ. The suffering, the intolerable

itching, and the irresistible inclination to scratch or rub in order to attain relief, with all the miserable consequences which may and often do result therefrom, make this one of the greatest miseries to which women are subject. It is interesting in its causal relationships as well as its symptoms. It is found in some women along with a turgid mucous membrane and the hyperplasia of the genital surfaces caused by syphilis. In these cases it is well to subject the patient to a course of mercury or iodide of potassium, and in addition to this to apply the ordinary black wash on a strip of lint, especially on going to bed. By such measures the parts are greatly relieved, and the patient made comfortable. In other cases, again, the pruritus is set up by, or in consequence of, a discharge which keeps the surfaces moist. In these cases the vulvæ are bathed in a secretion coming from the vagina, at times arising in the vagina, at other times of uterine origin. In these latter cases the uterus is found large, heavy, and congested, with a hard os, and a good deal of secretion oozing from the cervix. What betwixt the hyperæsthesia of the parts from their being constantly bathed in moisture, and the irritant qualities of the discharge itself, great excitement is kept up, which the friction resorted to only temporarily allays. In such cases the most scrupulous cleanliness, the use of the bidet, and the vaginal douche are indicated, while borax applied locally is of great service.

The most interesting causal associations, however, are to be found in the pruritus of diabetic patients. This matter formed the subject of a communication to the Harveian Society, last session, by Dr. Alfred Wiltshire, and recently a paper by Prof. Winckel has appeared on the same subject. It seems that the diabetic urine is not only a source of irritation in itself, but, if allowed to remain unremoved, favors the development and growth of a vegetable parasite which aggravates matters very much. The parasite is a form of oidium, which, like others of this class, is readily destroyed by sulphite of soda. In these cases the parts should be carefully washed after each act of micturition, and then a solution of sulphite of soda applied. A strip of lint dipped in a solution of borax may advantageously be inserted betwixt the vulvæ at bedtime. In all cases of pruritus vulvæ, indeed, it is well to bathe the parts immediately after the urine has been voided, as it always forms a source of irritation from the salts it contains. In all cases two full doses of the bromides are indicated. Its anæsthetic properties upon peripheral nerve-endings are well shown in the case of the pudic nerve ; and in all cases of excitement in this nerve bromine in some form is to be resorted to. It largely does away with the excitement kept up betwixt the local periphery and the sensorium, and so destroys, to a great extent, the effects of habit. By its use, and the local measures described, much may be done for a class of cases too commonly found exceedingly intractable. In all cases it is well to keep the bowels carefully unloaded; and this is very important at bedtime. A load in the lower bowel always keeps up and maintains a condition of vascularity in the adjoining parts which is most undesirable.

The relations of pruritus vulvæ to diabetes are of great interest. It may indeed be the only indication of a state of glycosuria where the proportion of sugar in the urine is not large. Such a condition exists in many persons where the drain is never noticed ; but in women complaining of pruritus the urine should always be carefully examined. The old impression that diabetes is an incurable and necessarily fatal disease is now exploded, and works on diseases of the kidney, etc., all now narrate cases of transient glycosuria where no injury whatever was done to the organism. Several such cases are related by Wm. Roberts, of Manchester, in the new edition of his work on Urinary Diseases. Where this condition of glycosuria is overlooked, the case may linger on for years, the treatment being very ineffective, because not strictly adapted to the case in hand. The presence of ascarides or thread-worms in the rectum is also most mischievous in its effects in maintaining local pruritus, especially if the worms find their way out of the anal orifice at night and creep over the perineum to the fourchette. This matter should never be neglected in the pruritus of children and young girls. Of course the more debilitated the system the more these parasites, vegetable and animal, thrive ; and one factor in their removal is to improve the general condition of the organism in which they show themselves. In ordinary cases of diabetes much may be done by a regulated dietary, especially the avoidance of cane sugar. One case is well known to me where the glycosuric patient can eat starch with impunity, but where indulgence in sugar is immediately followed by an outburst of the ordinary symptoms. Because a patient looks well, has no thirst, dryness of skin and throat, or great increase in the bulk of urine, it will not do to dismiss the possibility of the presence of diabetes, without testing the urine, if the patient have pruritus vulvæ.

The treatment of internal hemorrhage needs some revision and the application of the teachings of physiology. The use of astringents is much aided by the addition of some sulphate of magnesia to the ordinary mixtures, which is a good and powerful astringent elsewhere than to the intestine. Its effect upon the bowels makes it a useful addition to ordinary astringent mixtures, which otherwise would act prejudicially upon the bowels if this effect were not counteracted. In addition to the wonted remedies, quiet and cold fluids are the measures usually adopted. But there is

room for some difference of opinion as to the use of external cold. This may be applied locally with advantage in many cases; but it is the question of the general application of cold that calls for attention. In hæmoptysis and metrorrhagia (as well as menorrhagia), it is advised in all text-books to keep the patient generally cool. The wisdom of this is very questionable. If the peripheral ends of the systemic arteries are generally contracted, there must be a flux of blood to the internal parts, and a rise of the blood-pressure on them. Thus, in hæmoptysis, if the body generally be cold, and especially the highly vascular hands and feet, the blood-pressure must be raised in the pulmonic circulation and the hæmoptysis be increased. A case under care some months ago showed this very clearly. The girl was cold and chilled, the weather being very bad and the temperature low. Her hands and feet were gelid and corpse-like. In addition to the ordinary astringents and cold fluids internally, the external application of heat was recommended, and hot bottles were put to the feet. As soon as the girl became, as her mother expressed it, "as warm as a toast," the hæmoptysis ceased, and has never returned. The dilatation of the systemic vessels relieved the pulmonic circulation, and the hemorrhage ceased. Again, some time ago, a patient had a severe catamenial loss, and the feet were like ice. A hot bottle soon warmed them, and as they grew warm the hemorrhagic flow was lessened.

The relation of the condition of the blood-vessels of the lower limbs to that of the pelvic vessels is very important. Dr. Dewees has told us of the practice of putting the feet into cold water deliberately to arrest the menstrual flux, and a case, where such immersion of the feet, for another purpose, was followed by arrest of the flux, came under notice quite recently. The contraction of the blood-vessels so induced is not confined to the lower extremities, but extends into the pelvis. Consequently in some cases such application of cold may be found useful. In other cases, however, a different line is to be pursued. Where the surface generally is cold, the blood is driven, in a large measure at least, from the cutaneous surface, collects in the viscera, and so adds to the existing hemorrhage. A very illustrative case occurred lately. The patient had aborted, and, being compelled to move about too soon, a sanguineous discharge had persisted for ten weeks. She was put to bed, and cold fluids were given internally, with aromatic sulphuric acid, sulphate of magnesia, and infusion of rhatany. The weather suddenly became very cold, and the hemorrhage increased rather than decreased. It was then pointed out that the extremities were very cold, and the patient declared that when she was warmer the loss was less, since she became cooler it had increased. She was ordered to have on some more bedclothes, and especially the feet to be kept warm. Shortly after this the flow sensibly diminished, and in seventy-two hours it was nearly entirely gone. The astringents and the cold fluids internally were continued.

The conclusions furnished by these cases are as follows. The imbibitionof hot fluids tends to dilate the vessels of the chief viscera, and so to increase any existing hemorrhage: consequently it is well in such cases to see that all the fluids taken be cold or even iced. It is equally certain that general cutaneous coldness may increase internal hemorrhage, while the local application of cold may affect the blood-vessels of distant parts. But at the same time chilled extremities may keep up internal hemorrhage, and in many cases it will be found good practice to apply heat externally to one part while cold may be applied to another. Thus, in cerebral congestion the feet are put into warm water, while cold is applied to the head, with good and satisfactory results. The experiments of Max Schuler have demonstrated that the application of vesicants to the surface affects the calibre of the cerebral blood-vessels; and the blisters to the calves of the legs combined so commonly with the above measures in cerebral congestion are probably useful. Nevertheless, these remote actions must be subordinate to the great and broad laws of blood-distribution; and if there be hemorrhage from an internal part combined with chilled and bloodless extremities, to restore the blood-flow through these parts must be an efficient means of reducing the hemorrhage. It is clear enough that it is not desirable in all cases of hemorrhage to keep the surface cool: cases arise where the surface must be kept warm while all ingesta may be cold with advantage.

There is a slight epidemic of typhoid fever in London at present. The form, however, is a severe one, and the proportion of deaths is high. There is no special peculiarity or form assumed.

The guardians of the Keighley Union, who declined to put the Vaccination Act into force, were committed to jail, and were confined in the debtor's division of York Castle. The demonstrations which accompanied their arrest and removal inspired them with a sense of martyrdom, which, however, evaporated amidst the routine of their retreat and the firmness of the magistrates. So the other day they were admitted to bail on condition that they conducted themselves prudently when out, and did not get up popular agitations. The anti-vaccination party have not got the political capital out of the move that they anticipated.

Prof. Ferrier's work on "The Functions of the Brain" will shortly be out. It is illustrated by some exquisite plates, and will be eagerly looked for by those who are interested in the nervous system.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 22, 1876.

THE PRESIDENT, DR. WILLIAM PEPPER, in the chair.

Heart showing anomalous arrangement of pulmonary valves, these being four in number; fenestration of pulmonary leaflets. By Dr. J. C. WILSON.

THE specimen was removed from the body of a middle-aged woman, who was admitted dying into the Philadelphia Hospital.

There are four semilunar valves at the orifice of the pulmonary artery, three of which are nearly or about the normal size. The fourth resembles the others closely in contour and formation, save that in all its measurements it is smaller, being both narrower and less deep, and is, so to say, crowded in between two of its fellows.

The heart is hypertrophied, especially in the right side; the other valve-systems are normal. A point worthy of attention is the marked thinning of the pulmonary semilunar leaflets in the region known as the *lunula*, and in some of them the separation of the tendinous border of the valve, forming a slit-like opening or *fenestration*. This, viewed in connection with the right ventricular hypertrophy and the fact that the right lung was so compressed by a vast pleural effusion of long duration as to form a small shrivelled mass, and so afford great if not almost complete obstruction to its circulation, goes far to support the theory that such valve-fenestrations are due to long-continued, extensive arterial tension. They are encountered, as the gentlemen of the Society are aware, with great frequency in the aortic valves, but this is the first instance in which I have seen them in those of the pulmonary artery.

The excess in the number of valves is a rare malformation. Up to 1851, Peacock had collected nine instances of it, eight of which were located in the pulmonary valves. Deficiency in the number is relatively of much more frequent occurrence.

Such valve-anomalies as this are of greater interest, perhaps, to the teratologist or embryologist than to students of pathology; yet I have not hesitated to bring the specimen before you, first, because it is a rare one, and in the second place, in the hope that some among you may be able to inform us at what period in development the malformation has taken origin, and whether it be due to perverted growth alone or to ante-natal disease. The condition of the right chest alluded to was due to carcinoma of the pleura, of the variety scirrhus, as was demonstrated by sections prepared for me by Dr. Van Harlingen. The specimen has not been preserved, but was of great interest as an example of *primary cancer of the pleura*, the occurrence of which is denied in most of the text-books.

Dr. PEPPER called attention to the fact that the appearances at the point of insertion of one of the small leaflets in the specimen showed conclusively that this seeming malformation was the result of disease. He also alluded to the comparative rarity of fenestrations in the valves of the right side of the heart, and to the fact that although these small perforations may occasionally be the result of malformation, they are far more frequently found associated with conditions that indicate that there has been increased strain upon the valves.

Aneurism of the transverse portion of the arch of the aorta. By Dr. J. C. WILSON.

The specimen was removed from the body of a black man, who died in the Philadelphia Hospital.

J. P., æt. 35, born in North Carolina, a waiter by occupation, was admitted April 28, 1876. His illness was said to be of four months' duration only. It began, he stated, with a cold and cough; had never been attended by fever or pain, except the distress due to shortness of breath and headache. Shortly after his admission to the ward the following notes of his condition were taken:

A medium-sized man; muscular, but without fat. Expression anxious and distressed. States that he has been very short-winded for several weeks; cannot lie down to sleep, and suffers from headache. His voice is husky and laryngeal, but when he musters breath enough he speaks for a moment clearly and from the chest, indicating an obstruction below the vocal cords. Nevertheless, a laryngoscopic examination is made; nothing abnormal is seen in the larynx, and all efforts to illuminate the trachea fail, because of his urgent dyspnœa and inability to aid me in the inspection. This dyspnœa is the most striking phenomenon in the case, the most marked symptom of disease. The respiration is so difficult, so irregular, so noisy, that to give the number of breath-acts in a minute would be misleading, and, indeed, scarcely possible. With each act of inspiration the superior portions of the chest, the supra- and infra-clavicular spaces, upper intercostal lines, as well as all its lower regions of both cartilages and interspaces, sink deeply inwards; the mid-thoracic region alone seems to expand. Hence the shape of the chest is that which is seen in a child with symmetrical obstruction of the upper air-passages. There is frequent ringing cough, with abundant expectoration of frothy mucus. During the intervals of this we hear almost unbroken stridous, loud, ringing, sonorous râles, which, while they retain in general their constant character, vary with inspiration and expiration, and from moment to moment. It is evident that their seat of origin is in the trachea, for the reason that whether heard at

a distance over the windpipe, or on listening over any part of the chest, their character is the same, but their point of greatest intensity is always in the supra-sternal notch. They cover up the proper breath-sounds of the lungs, and make the sounds of the heart obscure. The percussion-note over the lungs is everywhere hyper-resonant. The upper sternal region is prominent, full, but without distinctly localizable tremor. All the muscles of the anterior cervical region are hypertrophied in an extraordinary way; this probably in consequence of the laborious breathing.

There is obscure dulness beyond the usual limits in the upper sternal region, but of its precise boundaries, even after repeated examinations, I cannot be certain.

The heart is certainly displaced downwards. Its sounds are heard with difficulty, because of the noisy breathing, but seem normal. No murmur is heard over the heart, the great vessels, or in any part of the chest anteriorly or posteriorly,—this after repeated examinations. Nor is there any point at which any abnormal pulsation or any thrill can be detected. The pupils are wide, but of the same size, and respond quickly to light. The radial pulses are small, tense, but even. The action of the heart is frequent, and a little irregular.

At the root of the neck, namely, above the clavicles, on the right side there is diffuse, feeble pulsation; on the left side, none, even when the carotid was carefully sought. Add to those phenomena a little difficulty in swallowing, but no pain of any kind except headache, and the symptoms presented by the case are complete. Digestion good; kidneys acting, urine non-albuminous, temperature normal. Syphilis, gout, rheumatism, intemperance denied; no history of any strain or "giving way," nor of any kind of a shock.

It was easy to make a diagnosis of tumor pressing upon the trachea; indeed, it was easy to say, in view of the sex of the patient, his age, his rapidly-progressing illness, the seat of the vague tumor, the displacement of the heart, the disturbance of the circulation of the carotids, and the peculiar character of that of the radials, that an aneurism of the thoracic aorta was present. But was it possible to know it? I think not. And I report the case as one in which it was impossible to find signs to prove a diagnosis of which we were confident. The treatment ordered was bromide of potassium in full doses till the excitement due to prolonged wakefulness and anxiety was somewhat allayed, and sleep was possible,—results which were happily attained in the course of a few days; afterwards iodide of potassium. His diet was liquid and semi-liquid, of moderate quantity. Save that he was calmer and slept part of each night, his condition was the same till May 25, when he suddenly died in asphyxia.

The *post-mortem* discovered the specimen which is laid before you. You behold a sacculated aneurism, the size of a small orange, springing from the upper surface of the transverse portion of the arch of the aorta, and giving origin to the innominate and the left subclavian and carotid arteries, of which the last is occluded by a firm organized clot. The sac, save at its upper part, where there are some adherent fibrinous laminæ, is filled at the post-mortem with recent clots; access to it is by a constricted opening. The aorta is elsewhere healthy, the heart slightly enlarged; its valves are normal.

The trachea just above its bifurcation is flattened from the right and forwards, backwards, and to the left; its mucous lining is deeply congested. The lungs are emphysematous at their margins. There is no erosion of the sternum.

I beg especially to call attention to the following points as of interest:

a. As negative points in the clinical history, absence—1, of impulse; 2, of thrill; 3, of murmur; 4, of pain, either purely aneurismal or from pressure.

b. As obscuring any sign that may have existed and escaped detection, 1, constant stridor; 2, hypertrophy and thickening of tissues of neck and upper part of chest; 3, thickening of upper wall of sac by laminated clots; 4, constricted inlet to sac, as allowing of retardation of the blood-stream filling it.

Scirrhous cancer of the rectum, with ulceration into the bladder and colloid degeneration. By Dr. JAMES TYSON.

C. W., aged 25, a house-painter by trade, consulted me early in June, 1875, for growing weakness and constipation. Thinking that probably he was suffering from lead-absorption, I ordered him iodide of potassium and a tonic and aperient pill of extract of nux vomica, rhubarb, aloes, and belladonna. He returned about June 20, reporting that he felt stronger, but that his bowels continued very troublesome. A pill at bedtime seemed to produce one or even two movements of the bowels before breakfast, without, however, giving relief to a sense of fulness just within the anus, which was very annoying. Sometimes, again, he would have two, three, or even four stools after dinner, which were, however, small and unsatisfactory, giving no relief to the sensation described. Without examining the rectum at this time, I concluded he had hemorrhoids, as he himself suggested, and ordered an ointment of galls and stramonium, the iodide of potassium continued, but substituted a compound liquorice powder for the pill.

On July 2 he reported that he was much better in all respects, although less so as to his supposed hemorrhoids; but as his bowels were so much better these also annoyed him less. There had, however, been some little bleeding from the piles.

On July 9 he reported some looseness of the bowels, with more or less constant disposition

to stool. In consequence of this the dose of the liquorice powder was diminished. The iodide was also omitted, and a mixture of dilute nitro-muriatic acid, pepsin, and strychnia ordered.

On July 16 he was again much better in all respects. The improvement, however, did not continue, and there was added a sort of incontinence of the bowel, as the result of which there would be small involuntary movements, and attempts to pass flatus would be followed by small fecal discharges. I now examined his rectum with the finger, and found just within the anus a thickening which extended almost entirely around the gut, but appeared smooth and covered with mucous membrane. Apparently, it did not extend upward farther than two inches. The withdrawal of the finger was followed by a thin fecal discharge. I now sent him, on account of the surgical nature of his disease, to my friend Dr. C. T. Hunter, who unhesitatingly declared the condition to be one of carcinoma. He was informed of the suspected nature of the growth, placed upon tonic and supporting treatment, and for six months his condition did not materially change. He perhaps grew weaker, but *very* slowly, and he continued to visit me at my office at intervals, and even occasionally did a day's work.

January 17 he was again placed upon the iodide of potassium, gr. x, 3 t. d., with the intention of continuing it as long as possible and thus determine whether it would have any effect on the growth. On the 3d of March he told me he thought he *passed wind through his urethra*. No fecal matter, however, was passed in this way, although he was constipated. The latter condition now annoyed him a good deal, but he was easily relieved by small doses of sulphate of magnesia before breakfast. It soon became certain that a communication between the bladder and rectum existed. He continued slowly to grow weaker until May 29, when he sent for me, being too weak to leave the house. I found him suffering with extreme abdominal pain, which was not, however, constant; his bowels had not been open for a week, and he had attacks of profuse vomiting of liquid matter, but without fecal odor. Purgatives and injections failed to afford relief, and, singular to say, the latter were retained, not a drop of two large ones passing the anus; and yet, as far as the finger could reach, there appeared to be no obstruction of the bowel. The belly was enormously swollen and tympanitic. He was finally put upon one-half grain doses of calomel with one-quarter grain of opium every hour. These were ordered on the 2d of June, and after about fifteen grains of calomel had been taken he began to have copious evacuations of fecal matter through his urethra. These kept up for a couple of days, the quantity discharged being very large, and, although inconvenient, the passage was accomplished with tolerable ease. It became necessary, finally, to check the discharges by opiates. During this time there was no discharge whatever by the anus, and the belly continued swollen and painful. He gradually sank, and died quietly June 10.

The *post-mortem* examination was made on the 12th. The body had suffered considerable emaciation. On opening the abdomen the omentum was found much congested, the larger vessels being cord-like in their distention with blood; the wall of the bowel was also congested, but there was no peritonitis except in the pelvis, whose contents were glued together. The rectum and bladder were removed in relation. The lower end of the former was the seat of extensive thickening and colloid degeneration; as the bowel was ascended the proportion of the latter grew less, and finally became circumscribed in cysts of gradually diminishing size until they reached that of two to four lines in diameter, so that they could easily be cut in thin sections and their formation minutely studied. The cancerous infiltration, which invaded especially the submucous connective tissue, was thickest just within the external sphincter, where also the colloid degeneration was most complete,—masses three inches in diameter separating from the gut on its removal,—gradually diminished in thickness, until it disappeared at least eight inches above the sphincter muscle. The perforation in the rectum, less than half an inch in diameter, was found about three inches above the external sphincter, and passed into the bladder a very little to the left of the median line, on a line drawn between the two orifices of the ureters. The opening was about the same size as that in the rectum. The bladder appeared small and contracted, and was partially filled with semi-liquid fecal matter.

Histologically the growth exhibited the elements of the hard or scirrhous variety of glandular cancer, the fibrillar connective tissue being largely predominant, although well-defined alveoli with epithelioid arrangement of contained cells were sufficiently numerous in thin sections.

As already stated, the smaller cysts filled with colloid matter afforded an excellent opportunity for the minute study of this degeneration. In these cysts were found cells in different stages of metamorphosis, including perfect colloid spheres and those of the characteristic seal ring.

Calculus of unusual size passed by the urethra.

By Dr. Tyson.

The gentleman from whom passed this calculus is perhaps 38 years of age. He had his first attack of nephritic colic in January, 1869, another, very severe, in July, and sharp attacks, lasting from one to many hours, almost weekly during the fall of the same year. In the first two he was attended by physicians, in the subsequent ones he

treated himself by hot applications and baths. Some time during this period he passed a small stone through the urethra. At the close of 1869 or beginning of 1870, after this series of attacks ceased, he first became unable to sleep through the night without rising to evacuate his bladder. Some time after this, also (the exact date he cannot locate), he began to experience a stinging sensation during micturition, together with a frequent desire to pass water during the day.

In the early spring of 1872, I attended him for the first time in an attack of nephritic colic. An examination of the urine at this time revealed neither pus nor an undue quantity of mucus. Similar but slighter attacks occurred during the fall of the same year, but no calculus was then known to have passed through the urethra.

In January, 1874, he consulted me for the symptoms of stinging urethral pain and frequent disposition to pass water, which had gradually increased during the year previous, so as to have become very annoying. An examination of the urine at that date revealed an alkaline reaction which was probably secondary, a sp. gr. of 1018, and a moderate deposit, which was opaque, white, and shown by the microscope to be made up of pus, red blood-disks, crystals of the triple phosphate, with amorphous phosphate of lime. The urine was also albuminous, depositing about one-tenth its bulk by the heat and acid test. Numerous other examinations resulted similarly, and it was found that the urine at the moment of secretion was acid, but rapidly became alkaline in consequence of the large amount of organic matter present. The presence of a quantity of blood so small as to be detected only by the microscope, and again so large as to be evident to the naked eye, was constant. Of course, when the urine happened to be alkaline, there was added the dirty-hued glairy mass usually present under these circumstances.

On exploring the bladder with the sound, which was done on more than one occasion, it was found exquisitely tender, but no stone was detected.

At different times during the year he was treated by tannic acid, benzoic acid, and other remedies, and his bladder was washed out daily, at times with tepid water and at others with weak acid solutions. Perhaps through the latter means, which the patient practised faithfully himself, the symptoms of irritation of the bladder diminished; his days were quite comfortable, and he was compelled to rise only once during the night. His urine remained, however, unchanged.

About the 1st of March, 1875, the patient fell into a febrile state, characterized by a frequent pulse, warm and dry skin, with dryish tongue, and a feeling of great weakness. These symptoms, when not controlled by remedies, were almost constant for about two months, and resulted in an appreciable loss of flesh. He was not under my treatment at the time, but from what I learned of his symptoms I felt misgivings that the conclusion I had come to with regard to his case—that there was a cystitis, and the cause of the purulent urine was wholly confined to the bladder—was not correct, and that there might be an impacted calculus in the pelvis of the kidney which caused the pus and the fever-symptoms, not unlike those of typhoid, from which he suffered. About the 1st of May, however, they abated, and his general health began to be restored. For two or three days previous to May 15 there was the most intense irritation of the bladder. The desire to pass urine was constant, while the obstruction was complete, necessitating the use of the catheter with which the patient always relieved himself. About one P.M. of the 15th, he sent for me, stating that he believed he was passing a calculus, that it was apparently lodged in the perineum. By the time I reached him, three hours later, the calculus exhibited had passed, followed by a hæmaturia which gradually diminished. On May 21, the urine six hours after passing was still phosphatic, contained a few blood-corpuscles, and was albuminous, containing one-fourth its bulk of albumen.

The calculus, before bisected, was nearly an inch long and half an inch wide, and phosphatic in composition. Since it was passed, Mr. Y. has enjoyed excellent health, and writes me on June 20 of this year, "I have no symptoms except such as may be revealed by the appearance of urine. I am not annoyed by frequent desire to micturate. In a sleep of eight hours I have to get up once. Occasionally, when very tired, I have slept the entire night." A specimen of his urine accompanying this note was faintly alkaline, contained an evident opaque white sediment, which proved to be pus on examination with the microscope, while the application of the usual tests precipitated a small quantity of albumen. Some cystitis, therefore, remains; whether it will ever disappear is uncertain. He has been under no treatment whatever since he passed the stone.

I believe the direct cause of the passage of the calculus was the constant catheterization for the purpose of washing out the bladder. Soft catheters were used, and of the largest size, so that finally the patient remarked that he had so dilated his urethra that he could scarcely retain his water.

The question of the date of the entrance of the stone into the bladder is an interesting one. There are two occasions on which this might have occurred. First, at the termination of the first series of attacks, late in 1869. Second, during the attacks in 1872, when I first attended him. The symptoms of irritation of the bladder date as far back as the beginning of 1870, although there was no

evidence of organic change in the bladder in the spring of 1872. These changes were, however, evident in January, 1874. There was no examination of the urine in the interval, although the symptoms of irritation of the bladder continued, and *some* cause must have produced them. If it was the stone, then another must have passed in 1872, have been voided without the knowledge of the patient, or still remain in the bladder. The latter is not likely, or there would not be the total abatement of symptoms. On the other hand, if we suppose the stone to have passed into the bladder at the end of the first series of attacks in 1869, then two stones must have come down at this period; for we have the history of one recovered at that date. On the whole, therefore, I am inclined to think this calculus entered the bladder at the end of the attack in March, 1872; although this would leave the symptoms of bladder-irritation between 1870 and 1872 unaccounted for. But as the conditions of the urine in 1872 pointed to no organic change in the bladder, and such change was developed between the attacks in 1872 and 1874, this view seems to me the more likely one. It must perhaps forever remain a matter of probability.

Tumor of the back and left shoulder and right lung, recurring within a month after removal of an epithelioma from the left side. By Dr. A. F. MÜLLER, for Dr. R. W. DEAVER, who furnishes the following history:

"The patient, Mrs. W., aged 51, came under my care April 28, 1876, though I had seen her several times with Dr. Müller as early as November, 1875, when Dr. M. removed from her left side a tumor, which your committee pronounced an epithelioma. The wound healed kindly and promptly, and, whilst the pain in the side was removed, she complained of pain in the right lung, from the clavicle as low down as the nipple. Some time about December 1 she began to complain of pain in the right shoulder, and examination revealed a hard, smooth swelling between the shoulders. This continued enlarging to near the time of her death, and the pain only ceased some two weeks before dissolution, the pain in the right chest having subsided some ten days earlier. When I assumed charge of her, in April, she was confined to bed, and had been all winter, and was so weak that no *physical* examination was made. The slightest pressure gave rise to violent pain, either on the anterior or posterior portion of the chest, and attempts to raise her up in bed caused alarming dyspnœa. She had little or no appetite, and slept but little, though she was taking thirty-five to forty drops of Battley's solution every three hours, *and could not get along without it.* All efforts to change the opiate or even to use the article prepared by other druggists proved futile. Her bowels were moved regularly every day. She died June 17.

"*Autopsy*, twenty-five hours after death.—Rigor mortis well marked. Emaciation extreme. Great muscular atrophy. On opening the abdominal cavity the intestines were found largely distended with gas; some semi-solid fæces in the lower bowel; quite a considerable quantity of serous effusion in the peritoneal cavity (probably two quarts); no evidence of peritoneal inflammation. The line of Dr. Müller's incision in removing the tumor last fall remarkably smooth. The mesentery smooth and transparent; no glandular enlargement anywhere; stomach healthy; spleen normal; liver small and firm; thorax, some sternal adhesions, strongest on right half; the left lung healthy, and pleura smooth, except a few old adhesive bands in posterior and upper part of thorax. There were about two pints of serous effusion in this pleural cavity, and three pints in the right. The right lung was firmly adherent to entire line of third rib and upward; beneath this the lung was free and the pleura smooth. The lung was contracted fully one-half, and contained the round, nodulated tumor seen in the specimen. The pericardial sac contained nearly one-half pint of the same clear serum. Heart apparently healthy, and distended with venous blood. Uterus and ovaries normal, if we except a small cyst the size of a walnut on the right ovary. The surface of the kidneys studded with minute cysts, otherwise healthy. The tumor upon the back extended from an inch and a half on the right side of the spine, about the fourth dorsal vertebra, upward over the left shoulder, nearly to the clavicle, and into the cervical fascia an inch below the ear. Its upper margin was rounded and well defined, whilst the lower border was lost in the inter-spinal muscles. The tumor was so firmly adherent that it could not be torn loose, and had to be cut with the knife; but it did not involve the scapula or ribs."

The specimens were so badly preserved that they could not be referred to the Committee on Morbid Growths for microscopic examination.

REVIEWS AND BOOK NOTICES.

GENTLEFOLKS AND OTHERS. By JULIA DUHRING. Philadelphia, J. B. Lippincott & Co.

Miss Duhring, authoress of that very charming volume, "Philosophers and Fools," has just published a second work, "Gentlefolks and Others." The first met with a welcome, both from critics and readers, that must have proved very gratifying to the writer; the second, as we see, has not been allowed to pass without undergoing an ordeal commonly reserved by reviewers for that class of the literati which attempts to hew its way *sans façon*.

How aggressive Miss Duhring is in her per-

sonnel we have no means of judging. That she is versatile the pages we have read from her pen exhibit clearly enough. In one essay she is found using tools heavy as those employed by historians or by writers on science; in another we are led to admire the taste and delicacy with which are handled mental instruments whose nice direction requires keener judgment than that which guides the chisel of the sculptor or the brush of the artist.

Looking both closely and curiously at the chapters of this second book, and comparing what have been termed the "peculiar" views set forth in them with objections urged by the critics, we find our convictions take side with Miss Duhring. Particularly do we give her the adherence of our judgment on a point against which the attacks have been strongest. Our allusion is to the chapter on "Authors," in which its authoress advances the assertion that æsthetical productions destined to have most influence are produced with least premeditation and with least aid from the culture of scholarship.

We cannot but think that Miss Duhring has been very much misunderstood by those who have ventured to criticise her views; at least we must conclude either this, or that the fault-finders are themselves lacking in that mental cultivation on which they lay so much stress. No two things are more widely separated than Inspiration and Rhetoric. Homer, whose Iliad stands as the masterpiece of literature, knew no more of letters than did the rocks of his native Chios. The rhetoric of the chisel found itself able to do but little towards bringing from the marble the warm and effulgent ideals of Apelles. The poetry of John Bunyan—for the tinker wrote true poetry—was not composed after any form of the schoolman's art; it simply ran out of the giver, a something self-made. It was like the water which falls in splashes and runs in rivulets from an over-full fountain. If Shakspeare and the Baron Verulam were two people, then the former must have composed his plays somewhat after the manner to which Miss Duhring alludes; for surely the scholastic learning sufficient for their production was to be found with but one man in all England, and that man was Francis Bacon.

In a conversation had by the writer of this article with the painter of that celebrated picture, "The Christian Martyrs," the artist spoke of his conception as the creation of a moment, begotten and born of a thought that came to him as on a summer's afternoon he sat looking out upon the sky from a stone bench in the Coliseum at Rome. "I painted it," he said, "when I got home, but I did not alter an iota of the original idea."

Let it not be said that pigment is the picture, or that words are poems. Color and language are but expressions of Idea. It is Idea that is the true thing, not Representation. Forms of speech are to a thought what the railway is to a locomotive. Krummacher is right,—"Bild und Zeichen sind nicht das Wesen."

The views of Miss Duhring find a strong defender in the immortal Academician. "Matter," says Plato, "is the copy of the idea," and this truth he defends with a vigor which quickly enough leaves an opponent nothing to say. In reading over some of the reviews of "Gentlefolks," we have been led to think that a perusal of a few of the arguments of the "Republic" would have saved the writers from making expositions much more injurious to themselves than to our authoress.

In that volume of Addisonian English, "The Lorgnette" of John Timon, the author has published the notices made of his book, pro and con; they are very amusing, and have furnished, no doubt, the occasion for many hearty laughs to the writer and his friends. We cannot but think that Miss Duhring has found a like amusement from the differing opinions of her critics.

We are not able to admit, however, that our authoress impresses us as being one who writes exclusively from that inspiration by which she sets so high a store. Scholarship and the peculiar culture of the literatus are marked associates of her productions.

Knowing the writer to be a woman,—we were formerly under an impression that the name was a *nom de plume*,—we find ourselves wondering as to where the experiences come from. Few modern books show greater breadth of acquaintance with the belles-lettres than does "Philosophers and Fools." We cannot but think it a great accomplishment to be able to use German, French, and Latin as one does his mother-tongue; and this Miss Duhring seems to us to be able to do.

This brings us to what we incline to pronounce the fault of our authoress's style. It is too masculine; that is, it is too positive to correspond with the negative nature of womankind. Not but that a woman may have thoughts vivid as those of a man, and that she may as well give utterance to them; but she can have these thoughts and can give voice to them only at an expense in the way of wear and tear that makes a doctor fear for the physique. Such a fault, however, concerns its possessor rather than other people.

In concluding, we would direct attention to the particularly happy employment of the semicolon by Miss Duhring. Here indeed is an admirable illustration, if we mistake not, of what she means by the unpremeditated doing of things; and here, as well, is no expression of effort. Her writings are full of sentences made by this particular punctuation mark; it seems to drop from her pen entirely regardless of any study of measure, yet it is always found in the right place, and the phrases made by it would be commended, we think, even by the phlegmatic Blair himself.

J. E. G.

THE CAUSES AND OPERATIVE TREATMENT OF DUPUYTREN'S FINGER CONTRACTION. By Dr. OTTO W. MADELUNG, Lecturer of Surgery at the University, and Assistant Surgeon at the University Hospital, Bonn. Trübner & Co., London. G. P. Putnam's Sons, New York.

The author of this little brochure of twenty-four pages gives a very clear description of a troublesome surgical affection, first brought to the notice of the profession by Dupuytren, known as "Contraction of the Palmar Fascia."

Dr. Madelung's observations have led him to believe that contraction of the fingers in cases of contractura palmaris is principally due to a state of chronic inflammation of the fibrous tissue which connects the skin of the palm of the hand with the palmar fascia; which inflammatory process "leads to hyperplasia of the normal fibres, and finally to their shrinking, with consequent permanent bending of the fingers." The author, in discussing the etiology of this affection, claims, in opposition to Dupuytren's statement, and in accordance with Eulenburg's, that contraction of the palmar aponeurosis is not invariably met with among members of the working class.

In considering the treatment of "Finger Contraction," Dr. Madelung expresses a decided preference for Busch's method of operating; indeed, it is the only method described in this pamphlet. Other methods are simply referred to in order to be condemned as entirely worthless or positively injurious. The results obtained by the author in a large number of cases in which the proceeding of Busch was resorted to are highly satisfactory, and go far to prove the correctness of the author's views concerning the pathology of this disease.

Two very important improvements have been recently introduced into the operative method of Busch, as practised in the hospital at Bonn, which have materially contributed to the success of the operation. The first is the adoption of the Esmarch bloodless method, which permits the surgeon to proceed slowly and surely in the division of the contracted fibres of connective tissue overlying the palmar fascia and the flexor tendons without risk of injuring either of these structures. The second improvement, which will be considered a decided one by the disciples of Prof. Lister, is the employment of antiseptic dressings in the treatment of the wound.

The author closes his interesting paper by giving in detail an account of the only failure observed at Bonn: this failure is attributed to want of care, in part, of the patient himself, he having disturbed the antiseptic dressing by insinuating the blade of a knife beneath the bandage to scratch the parts around the wounds.

As Busch's method is not noticed in any of the English or American systematic works on surgery, Dr. Madelung's papers may be welcomed as a valuable contribution to the literature of "Finger Contraction." C. T. H.

AUTUMNAL CATARRH (HAY FEVER). With Illustrative Maps. By MORRIL WYMAN, M.D., Boston, 1876. New York, Hurd & Houghton.

HAY FEVER OR SUMMER CATARRH. By GEO. M. BEARD, M.D. New York, Harper & Brothers.

This disease, the subject of the monographs by Drs. Wyman and Beard respectively, is so persistent, occurs so frequently in the one individual, is so annoying and yet so little dangerous to life, and is so rebellious to treatment, that it stands pre-eminent among those affections in which the sufferer learns to be his own doctor. Consequently, the sale of the books of Drs. Wyman and Beard will chiefly be among the victims of the disease, and we strongly advise any such to purchase both, so as to enjoy at one time the theory and the practice of their complaint. There is sufficient diversity to prevent one work taking the place of the other. Neither of the books before us contains much in regard to the general natural history of the disease with which the profession is not already acquainted. Their chief practical value consists in their details in regard to geographical positions at which the sufferers may look for exemption, and in this respect the elaborate maps of Dr. Wyman's book give it a decided superiority.

Dr. Wyman apparently does not lay as much stress as he formerly did upon the distinction between the June cold and the autumnal catarrh, and Dr. Beard believes them to be identical diseases. After all, it seems to us that they are neither of them diseases, but rather idiosyncrasies. A well-known physician of this city is thrown into the most alarming illness by the emanations of a sprig of hyacinth. A relative of the writer is felled to the earth with syncope if she eats a mouthful of buttered bread or a spoonful of potatoes dressed with butter. Are we to have hyacinth-disease and butter-syncope? There are certain persons in whom the susceptibility to various emanations is so great that by them are induced asthma, respiratory catarrh, etc. In some of them it is powdered ipecac, in some it is the effluvium from the iron, in some it is the dust of the threshing-machine, in some it is pollen, in many it is the emanations from growing vegetation, and in others the horse, cat, or other domestic animal furnishes the "materies morbi." We have known an attack of autumnal catarrh caused by a watermelon, kept long after frosts had banished the usual disorder, and even by a green turf in midwinter. As a corollary from this, it seems to us a waste of time to discuss the identity of a June cold and a hay fever, and foolishness to assume because the symptoms are the same, and because cases occur from May to September, therefore these colds are one disease resting upon a common

cause. The fact that one case of hay fever is cured by going to a certain spot, another not (see p. 72, Dr. Beard's work), makes it exceedingly probable that even those cases which occur at one time are due to different irritant emanations.

STUDIES, CHIEFLY CLINICAL, IN THE NON-EMETIC USE OF IPECACUANHA. WITH A CONTRIBUTION TO THE THERAPEUTICS OF CHOLERA. By ALFRED A. WOODHULL, M.D., U.S.A.

So far as concerns its major subject, ipecacuanha, this brochure naturally divides itself into two parts, the practical and the theoretical. In the first the author expounds and illustrates the use of ipecacuanha for other purposes than to produce emesis. He does not add much to our knowledge, but he classifies it, so to speak, and elucidates the subject to the utmost extent; consequently, this portion of the book is a valuable contribution to medical literature. Of the theoretical portion of the work, the highest praise it seems to us entitled to is that it is an ingenious card structure, or a house built upon the sands. The upshot of its teachings is that the drug cures dysentery, etc., by being a stimulant to the nervous system, especially the "sympathetic;" all of which may be true, but is certainly unproven, and unprovable by the fact-data now at our command. New facts as to the physiological action of drugs—not new rhetorical studies of old facts—are what are needed now. Had Dr. Woodhull determined so simple a thing as whether emetia is or is not eliminated by the intestines, he would have shed far more light upon its mode of action than he does in the many pages of reasonings and speculation.

MEDICAL AND SURGICAL MEMOIRS, CONTAINING INVESTIGATIONS ON VARIOUS DISEASES. By JOSEPH JONES, M.D. Vol. I., 1876.

This large volume of eight hundred pages is devoted to the consideration of diseases of the nervous system,—tetanus, cerebro-spinal meningitis, dropsy, pneumonia, and mollities ossium. The author, who is one of the most learned and laborious of our Southern investigators, has here sustained his well-earned reputation. The essays are evidently the result of a thirst for knowledge which has endeavored to quench itself upon whatever came before the writer. As one travelling through a new country is attracted by a variety of objects, so a clever observer interested in the great study of medicine may collect data from the widest range of phenomena, and be consistent. The arbitrary boundaries between the several departments of the science are indifferently regarded by such a one, and, as Baron Larrey would record (possibly upon the same page) observations on gunshot wounds and the habits of field-mice, our author in his elaborate yet discursive manner discusses many things and does them all well.

The book will possibly have comparatively few continuous readers. But, on the other hand, no one writing upon the topics therein treated can afford to neglect it. Should the remaining volumes be conceived and executed in the same spirit as the one before us, we predict for the series a high position in American literature, and for their author still more extended renown. H. A.

GLEANINGS FROM EXCHANGES.

TREATMENT OF CHRONIC ECZEMA BY GLYCEROLE OF SUBACETATE OF LEAD.—In a little pamphlet of thirty-two pages, reprinted from the *Medical Times and Gazette*, Mr. Balmanno Squire discusses the treatment of a form of eczema which he describes as including only those persistent conditions to which the term was originally limited; that is, those which are characterized by a colorless viscid sweating from the skin; but equally whether that sweating be abundant, so as to keep the surface of the skin bathed in gluine, or so as to concrete in large scabs; or whether it be merely scanty, and occur even in minute, discrete, but more or less clustered spots, so as to present either only thin, small, transparent, dry, gum-drop-like deposits, which on detachment are found to be concave on the under surface, and conceal a small drop of viscid exudation; or, as the case may be, small, raw, scattered, but more or less clustered, weeping excoriations. He includes also that condition in which numerous but tolerably minute moist cracks in the reddened surface are present.

He therefore considers these conditions in which there is, either obviously or substantially, a moist and viscid exudation from the skin, and excludes those in which there is only a mere papulation, or a mere plastic thickening of the skin, or a simple dry scurfiness of its surface; in short, he refers to a wet disorder, and not to a dry one.

After alluding to the almost universal use of zinc ointment or zinc lotion in the treatment of such cases, Mr. Squire asserts that he has found lead to be a much more soothing and, at the same time, a much more astringent application. It unquestionably allays the itching, restrains the discharge, and diminishes the hyperæmia of chronic eczema far more speedily than zinc does. As a lotion, however, it fails on account of the evaporation of the water, and the failure of the remedy to reach the surface of the skin through the dry scab by which it is covered. After many trials, glycerin has been found in his hands to be superior to either oil or water as a vehicle for applying remedies in the case of chronic eczema; and the mixture which has been uniformly successful is to be prepared as follows. Take of acetate of lead, 5; litharge, 3½; glycerin, 20. Heat for half an hour in a boiling glycerin bath, constantly stirring, and filter in gas-oven or other kind of heated compartment. The result is a perfectly clear

and colorless liquid, which may be used in the strength of from one to two drachms to the ounce of pure glycerin.

Mr. Squire considers and disposes of the objection which may be advanced, that the use of such an ointment might give rise to constitutional symptoms from lead-absorption, and denies in toto the possibility of any such occurrence.

Homœopathic Tinctures (*The Medical Record*, August 19, 1876).—Dr. Farquharson, in *The Practitioner*, calls attention to the fact that the maximum doses of many drugs, as allowed by the British Pharmacopœia, are far too small, and urges the necessity for some action in the matter. He congratulates us, however, on the fact that the errors in our Pharmacopœia are mostly on the side of caution, and contrasts it with the looseness which prevails in homœopathic pharmacy, in which the feeble dilutions of former years have been replaced by excessively strong tinctures.

Anxious to obtain a correct idea of the strength of some of the homœopathic remedies, Dr. Farquharson tried some experiments with a few of their mother-tinctures and metallic solutions. He found by experiment that 15 drops of the mother-tincture of aconite were sufficient to kill a rabbit. This tincture about equals in strength the British liniment of aconite. The mother-tincture of belladonna is stronger than the tincture of the British Pharmacopœia, 10 ♏ causing on himself dryness of the throat and unpleasant dreams. The homœopathic solution of arsenicum, of which the dose for an adult is one to five drops, contains one grain of arsenious acid to 102 ♏ of water, while the corresponding solution of the British Pharmacopœia contains one grain to 120 ♏ of solvent. A solution labelled "Mercurious cor. Poison. Dose for an adult, one to five drops," contained about one grain of the amido-bichloride of mercury to two fluid-drachms of alcohol. This is about four times the strength of the solution of perchloride of mercury as ordered in the British Pharmacopœia.

Both these vegetable mother-tinctures and the solutions, the latter of which were, it is true, labelled "Poison," were sold freely and without question over the counter of a homœopathic pharmacy. What becomes, then, of the boast of the homœopathists that no mercury or injurious metallic substance is ever prescribed by one of their practitioners? The above figures show how misplaced is the rash confidence of homœopathists in the weakness and innocuousness of their drugs. A mistake in the matter of aconite, for instance, would not be likely to occur to the same patient a second time. Indeed, in view of the careless way in which amateurs recommend and take homœopathic remedies, it does not seem at all improbable that a mother-tincture might be mistaken for one of its dilutions. In conclusion, Dr. Farquharson cheerfully admits that although we are supposed to ruin the constitutions of our patients with enormous doses of deleterious substances, we must yield the palm of potency of dosage to those practitioners the very essence of whose professional existence was formerly believed to depend on the magical effect of their infinitesimal dilutions.

Choralization (*The Lancet*, August 19, 1876).—An Austrian surgeon, M. Linhart, has communicated to Baron Larrey an account of an interesting case, in which the anæsthesia and muscular relaxation necessary for the reduction of a dislocation of the shoulder were obtained by the intravenous injection of chloral. The patient had inhaled chloroform on two previous occasions, but each time the excitement under the chloroform had been very intense, and much vomiting followed. It was, therefore, decided to chloralize him. The solution of chloral employed was neutralized by a few drops of carbonate of soda. A gold needle was used, and the utmost care taken to insure freedom from extraneous particles. The injection was made into the left arm. At the end of fourteen minutes seven grammes of chloral had been absorbed, and anæsthesia was complete. There was not the least reflex movement. The reduction of the dislocation was effected with extreme facility. Absolute anæsthesia continued for half an hour; he was then awakened, and he drank, and then slept for several hours. On recovering there was no nausea or vomiting. Slight defective sensibility continued for twenty-four hours. The vein into which the chloral had been injected showed no trace of irritation or of coagulation.

Plastic Dressing in Fractures of the Lower Extremity (Pamphlet, pp. 10, Indianapolis, 1876).—Dr. David W. Yandell urges the prompt, and if possible the immediate, application of some form of plastic dressing in all fractures of the lower extremity. He says that "if you would encounter a broken leg when the injury done is at the minimum, when in dressing it you would give least pain and have it most in your power to avert inflammation and all the evils which journey in its train, you must do so on the spot where the accident has occurred, and as soon afterwards as you can get to it. Every inch that a fractured leg is moved is hurtful; every moment lost before putting it up is injurious. Swelling and pain are mere calls for rest, and the more quickly and perfectly you secure this the more rapidly and more completely will they quit the broken limb. Oftentimes the injury done to the soft parts by the ends of the bones being suddenly and violently displaced by muscular action, or by change in the position of the patient, gives rise to some of the greatest dangers which occur in fractures. Hence, the sooner you adjust the fragments, and the more securely you provide against their subsequent displacement, the better you will have treated the case. Let

neither pain nor swelling deter you from dressing the limb at once. If you see the fracture first at night, I pray you wait not till morning to put it up. Don't trust to sandbags, or pillows, or splints, or this or that other device, and finally take your leave, saying you will call in the morning. A sight of mischief may occur between midnight and sunrise."

After narrating some cases of complicated fractures in which this form of dressing was used with great success, Dr. Yandell states that in all the cases in which he has applied it there has never been one in which he has had occasion to remove it on account of swelling. When it is put on before swelling has taken place, cure will follow; and when swelling has already occurred, it will abate, and disappear altogether.

Treatment of Compound Depressed Fracture of the Skull (*The Lancet*, July 8, 1876).—Mr. Sampson Gamgee reports three cases of compound depressed fracture of the skull, in each of which the scalp was divided and the bones of the head broken and driven in, without producing evidences of injury to the nervous system. In none of the cases was the trephine applied, and in all the result was perfectly successful. From a consideration of these cases, and a careful comparison of the views of British and foreign surgeons, Mr. Gamgee concludes that in compound depressed fracture of the skull *without brain-symptoms* the proper course of practice is not to trephine.

Treatment of Syphilitic Buboes by the Parenchymatous Injection of Iodide of Potassium.—Dr. Jacubowitz, of Nagy-Karoly (*The Clinic*, August 19, 1876), starts from the principle that no inflammation to which a degenerative action is attributable is occasioned by the injections, but that by this means a solvent of a non-irritating character is brought into direct contact with the glandular tissue. He avoids tincture of iodine, all alcoholic fluids, and carbolic acid, and uses instead a weak solution of iodide of potassium in the proportion of about one part to thirty of water. He gives two cases in which he obtained extraordinarily successful results. In one case he made a puncture into the most prominent part of a gland which was enlarged to the size of a goose's egg, pushing the needle in obliquely to a considerable distance. After injecting about the fourth of the syringeful, a resistance was felt; he then withdrew the needle for a short distance, penetrated a septum on one side, and again injected a quarter part. By repeating this process, he threw in about fifteen grains of the iodide in an ounce of water. The tumor almost immediately became harder, smaller, and less painful. After four injections performed in the course of two days, the tumor gradually dwindled to the size of a hazel-nut, and ultimately vanished altogether. The second case was very similar. Here, however, two dark blue bodies remained, which were so hard that it seemed to be impossible to inject them. Dr. Jacubowitz, however, injected hypodermically the iodide on two occasions, and with perfect success. Ten injections were required altogether. The small quantity of the iodide required to produce the effects observed is very remarkable.

Cæsarean Section (*Detroit Review of Medicine*, September, 1876).—Dr. O. P. Barke reports a case of Cæsarean section performed upon a female dwarf æt. 17. The mother was forty inches long, and weighed sixty-five pounds; the child was twenty inches in length, and weighed six pounds. The mother died sixteen hours after the operation; the child was alive and well six months later.

The Physiological Effects of Compressed Air (*The Lancet*, August 5, 1876).—There have been many observations of late upon the effects produced on the functions of the body by long immersion in compressed air; and the efficacy of the compressed-air bath in certain pulmonary affections is held deservedly in high repute. Most of the observations on the subject have been made by M. P. Bert, of Paris, who supplemented his previous researches by a note read at the last meeting of the Société de Biologie. He pointed out that the mechanical effects of compressed air were to cause lowering of the diaphragm and liver, and a consequent increased pulmonary vital capacity,—an effect gradual in its production, but lasting long after the subject is withdrawn from the condensed atmosphere. Other experiments have been made by M. Pravaz, of Paris, and Drosdorff, of St. Petersburg. The former finds that the heart's action is at first increased and then lessened; the pulse first becoming more rapid and then slower, but never falling below the rate at the normal atmospheric pressure. The respirations are diminished during the immersion, but on removal of the increased pressure they rise in frequency, and in direct proportion to the degree of compression of the air. There is an increase in the amount of urea excreted, but this increase diminishes the longer the sojourn in the compressed air. There is at the same time an increase in the amount of carbonic acid expired. The temperature of the body rises above the normal at first, and then falls as the immersion is prolonged. These varying effects are due, M. Pravaz thinks, to the two influences of inward atmospheric pressure and hyper-oxygenation, the former tending to diminish the circulation and the organic changes, and the other to increase them. He agrees with Waldenburg that there is a lessening of arterial tension under these conditions, but herein he differs from M. Drosdorff, who has found, first, that the inspiration of air at a low degree of compression (one-sixth atmosphere) raises the negative pressure of the thorax, and thus

lowers the blood-pressure in the aortic system; secondly, inspiration of air at a higher degree of compression induces active expansion of the lungs and diminishes the negative intra-thoracic pressure, whilst lowering the expiratory power of the thorax, and hinders the passage of the blood from the veins into the arteries; hence a diminution in the arterial pressure.

A Case of Lithopædion (*The Clinic*, August 12, 1876).—At a recent meeting of the Wiener Medicinische Gesellschaft, Dr. Chiari showed a tumor taken from a woman, eighty-two years of age, who had lately died of an attack of pneumonia. By the side of the uterus, which was very long, a swelling, the size of a man's head, was found, and, on opening it, most of the parts of a fœtus were discovered. The woman stated that in 1827 she was for the last time in the family way. After the eighth month she felt no approaching confinement, and went on without experiencing any pain, with a large tumor in the abdomen. She never consulted any one about it, and lived on for fifty years with the unsightly swelling. Dr. Chiari, after a minute examination of the pelvic cavity, concluded that this was a case of abdominal pregnancy.

MISCELLANY.

The Eucalyptus Globulus.—The Italian Government, persuaded by the success of the Trappist brotherhood of *San Paolo fuori le mura di Roma* that the Eucalyptus Globulus has a beneficial influence in malarious districts, has presented to the land-holders of Italy large supplies of slips of the tree for the purpose of forming plantations where its virtues seem required. The Government also intends to grow the Eucalyptus along the boulevards of the large cities, and even along the various lines of railway throughout the kingdom. Land-holders themselves are following the initiative of the Government, and in a few years Italy expects to drive malaria effectually from her borders.—*The Druggists' Advertiser.*

Domestic Dosage of Medicines (*British Medical Journal*, February 26, and *London Practitioner*, May, 1876).—Dr. Farquharson's Drop Table.

56	drops	distilled water	= 60	minims.
113	"	tinct. opii	= 60	"
114	"	tinct. digitalis	= 60	"
100	"	liq. morph. hydrochl.	= 60	"
80	"	oxymel scillæ	= 60	"
75	"	syrup. papaveris	= 60	"
45	"	glycerine	= 60	"
114	"	spts. ætheris nitrosi	= 60	"
112	"	tinct. camph. comp.	= 60	"
55	"	acid. sulph. dil.	= 60	"
55	"	olei ricini	= 60	"
110	"	spts. terebinth.	= 60	"
100	"	ol. anisi	= 60	"

NOTES AND QUERIES.

ENGLISH ANTI-VIVISECTORS SEEN THROUGH PARISIAN SPECTACLES.

Mr. Editor,—I have translated from the August No. of the *Archives Générales* an article which I send you, that your readers may have the opportunity of knowing how absurd and ridiculous the anti-vivisectors appear from the Parisian scientific point of view. In my humble opinion we Americans have allowed ourselves to be too much swayed by the grannies of both sexes, and the sentimentalists whom it would be difficult to class with either sex.—Æ.

"The English have always been famous for their singular mixture of common sense and eccentricity of the most exacting sort, whtch, indeed, are the staple national qualities. Just now sentimentality is rampant. A certain number of sympathetic ladies and gentlemen, belonging to the Society for the Prevention of Cruelty to Animals, have raised a crusade against vivisection. Our readers will remember the succulent trial, after the last medical congress, in which some of our countrymen figured *in absentia*. And now a bill against experimentation is before Parliament, and is very likely to be adopted. No less than two thousand of the most notable physicians in the kingdom have been obliged to present to Mr. Cross, the Home Secretary, their urgent protest against this action! Whereupon Mr. Cross informs them that he is much more concerned for his position as Secretary than for the interests of science, and that if they will take his advice they had better be satisfied with the bill, lest they go farther and fare worse.

"Who would believe that in a country where a few weeks ago the glorious memory of Harvey was celebrated, and in the year of grace 1876, it should become necessary to oppose, and that without any assurance of success, a law which contains such provisions as these: That for every course of experiments likely to occasion pain, all duly qualified physicians and none other must first obtain a ministerial license; that they must conform to all the restrictions and formalities required by such certificates; that they must furnish the Secretary such records of their experiments as he may require of them; that the experiments shall be made only in places specially licensed for the purpose; and that in regard to experiments on dogs, cats, asses, mules, and horses, the license to perform them must be granted by the Secretary of State?

"Everybody knows the legend that Galvani discovered the physiological action of electricity in a frog prepared for his wife's meal. Imagine Galvani writing thus to the minister of Bologna: 'Your Excellency,—I have the honor to solicit from you the privilege of discovering the application of electricity to the muscles of frogs, and to immolate such a number of these creatures as your Excellency will permit. I promise to discover nothing except in such a street, at such a number thereof, and in presence of your Excellency's agents.'

"But these are not the most original provisions of the bill. To experiment on a rabbit or guinea-pig the Home Secretary's authority avails, but no less a personage than the Secretary of State can authorize the sacrifice of a cat. So the ministers are classified: the molluscs and the gallinaceæ are placed under the protection of the one, and selected mammals confided to the other. And thus, by a most unlooked-for conjuncture, a ministerial zoology is established.

"Fortunately, such restrictions are as illusory as they are ridiculous. But we cannot help thinking it curious that a nation so little prone as the English to Pythagorean food that they slaughter more animals to eat than any people in the world, should grow lachrymose over the thought of giving pain to a tadpole for the sake of sparing pain to man."

PLAN FOR ORGANIZATION OF THE AMERICAN MEDICAL ASSOCIATION.

The general meetings of the Association shall be restricted to the morning sessions; and the afternoon sessions, commencing at three o'clock, shall be devoted to the hearing of reports and papers, and their consideration, in the following Sections:

1. Practical Medicine, Materia Medica, and Physiology.
2. Obstetrics and Diseases of Women and Children.
3. Surgery and Anatomy.
4. Medical Jurisprudence, Chemistry, and Psychology.
5. State Medicine and Public Hygiene.

The Sections shall be organized by selecting from the permanent membership such members as may have acquired distinction in the branches of medical science assigned to the respective Sections, such selection to be made from the roster of permanent membership next preceding the adoption of this amendment, by a committee consisting of the three chairmen and so many of the ex-chairmen of the respective

Sections for the three years next preceding as may be present at the time of the adoption of this amendment; provided, however, that no one shall be thus made a member of more than one Section.

Only permanent members shall be eligible to membership of the Sections; and annually, as hereinafter provided, each Section may elect such as may be qualified by three years' consecutive membership, and who may have acquired distinction in the branches assigned to the Section. Forfeiture of permanent membership shall forfeit membership of Sections, but such forfeiture shall not prevent a re-election.

The officers of the Section shall consist of a chairman, secretary, a committee on business, a committee on membership, and a committee on essays. The chairman and secretary shall be elected by a majority of the ballots cast by the members of the Section, and shall hold their offices until the close of the business of the annual meeting next succeeding their election. The committees shall be appointed by the Chairman, and hold office for one year or until their successors are appointed.

The Chairman shall preside at all the sessions of the Section, perform all the duties ordinarily pertaining to the duties of a presiding officer; shall exercise general supervision over the business of the Section, see that the duties of the officers and committees are properly discharged, and shall prepare and read, in general sessions of the Association, a paper on the advances and discoveries of the past year in the branches included in the Section: the reading of such paper shall not occupy more than forty minutes.

It shall be the duty of the Secretary to keep a correct record of the proceedings of the Section and report the same to the Permanent Secretary; to revise and correct the reports of the stenographer, and deliver the same to the Committee on Essays; and to perform such other duties as may properly appertain to the office of Secretary.

The Committee on Business of each Section shall consist of three members, to be selected, when practicable, from the members residing in or near the city in which the meeting of the Association is to be held.

It shall be the duty of this Committee to prepare business for the Section, and, with that view, to select two or more subjects appropriate to the Section, and also to appoint from the members of the Section as many members, to each of whom a subject shall be assigned for report thereon, which report shall be prepared and submitted to the Section at the meeting next ensuing. Voluntary papers may, with the approbation of the Committee, be submitted by any member of or delegate to the Association. All papers and reports must be sent to the Committee at least one month before the meeting, and it shall be the duty of the Committee, after careful examination, to fix the time and order of presentation, and to prepare a memorandum of the titles, together with the main points set forth in the argument, which shall be printed and distributed to the members of the Sections by the Assistant Secretary.

The Committee on Membership of each Section shall consist of five members. It shall be the duty of this Committee annually to examine the roster of permanent membership, and recommend for election to membership of the respective Sections such as may be eligible and deemed qualified. It shall also examine the roster of membership of the Section, make all necessary corrections of names and addresses, erase from the list the names of all who may have forfeited their membership, and designate the deceased members.

The Committee on Essays shall be composed of three members. To this Committee shall be referred for examination all papers read before the Section, and all debates. The Committee will be allowed thirty days, at the expiration of which time it shall forward the papers to the Committee on Publication, with such recommendation as may be deemed proper; but no paper or discussion, either in whole or in part, shall be published in the Transactions without the recommendation in writing of said Committee on Essays.

The Committee of Arrangements shall provide for each Section a competent stenographer, who shall furnish the Secretary with a full verbatim report of the debates of the Section.

No member shall address the Section more than once upon the same subject, nor speak longer than fifteen minutes without unanimous consent.

The Permanent Secretary shall prepare annually a list of the members of each Section, which shall be published in the Transactions, and shall furnish each delegate with a printed copy of the plan of organization and by-laws, together with rosters of the permanent and Section membership.

THE office of the editor, Dr. H. C. Wood, has been removed to 1631 Arch Street, where communications should be addressed. He may be seen there personally until 10 A.M.

MR. EDITOR,—On March 11, 1875, Mrs. Hunter, a patient of mine, gave birth to a male child, on whose upper lip, to the right of the median line, was a mark extending from the alæ of the nose to the mouth, resembling the cicatrix which would result from an operation for hare-lip; so that the defect in the lip caused by an arrest of development was remedied by nature herself in utero. It still presents the same appearance at the present time.

The mother could not account for it by any maternal impression.

Yours, etc.,

October 6, 1876. WILLIAM T. TAYLOR, M.D.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 24, 1876, TO OCTOBER 7, 1876, INCLUSIVE.

BYRNE, C. C., SURGEON.—Granted leave of absence for one month. S. O. 120, Department of Dakota, September 25, 1876.

FRANTZ, J. H., SURGEON.—Granted leave of absence for two months, on Surgeon's certificate of disability. S. O. 195, Military Division of the Atlantic, September 28, 1876.

HARTSUFF, A., SURGEON.—Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 135, Department of the Platte, September 30, 1876.

GREENLEAF, C. R., SURGEON.—Leave of absence extended one month. S. O. 194, Military Division of the Atlantic, September 27, 1876.

WATERS, W. E., ASSISTANT-SURGEON.—Granted leave of absence for four months. S. O. 201, A. G. O., September 27, 1876.

WILLIAMS, J. W., ASSISTANT-SURGEON.—Relieved from duty in the Department of Dakota, and to report in person to the Surgeon-General at Washington, D. C. S. O. 204, A. G. O., September 30, 1876.

BROWN, J. M., ASSISTANT-SURGEON.—Assigned to duty at Fort Garland, C. T. S. O. 202, Department of the Missouri, September 27, 1876.

GARDNER, W. H., ASSISTANT-SURGEON.—Granted leave of absence for four months, with permission to apply for an extension of two months. S. O. 204, c. s., A. G. O.

BUCHANAN, W. F., ASSISTANT-SURGEON.—Granted leave of absence for four months. S. O. 206, A. G. O., October 3, 1876.

KINSMAN, J. H., ASSISTANT-SURGEON.—Assigned to duty at Fort Sully, D. T. S. O. 121, Department of Dakota, September 27, 1876.

TREMAINE, W. S., ASSISTANT-SURGEON.—Granted leave of absence for thirty days, upon completion of his examination for promotion. S. O. 202, c. s., Department of the Missouri.

MOFFATT, P., ASSISTANT-SURGEON.—Granted leave of absence for four months, with permission to apply for an extension of two months. S. O. 204, c. s., A. G. O.

BEDAL, S. S., ASSISTANT-SURGEON.—Assigned to duty at Fort Duncan, Texas. S. O. 174, Department of Texas, September 20, 1876.

TURRILL, H. S., ASSISTANT-SURGEON.—Assigned to duty at Fort Davis, Texas. S. O. 172, c. s., Department of Texas.

COMEGYS, E. T., ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for an extension of one month, and, on expiration of leave, assigned to duty at San Felipe, Texas. S. O. 174, c. s., Department of Texas.

CUNINGHAM, T. A., ASSISTANT-SURGEON.—Assigned to duty at Fort Stevenson, D. T. S. O. 121, c. s., Department of Dakota.

JACKSON, D., ASSISTANT-SURGEON.—Died at Woodville, Ontario, Canada, on September 22, 1876.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, OCTOBER 28, 1876.

ORIGINAL COMMUNICATIONS.

A CASE OF PHTHISIS, WITH A VOMICA COMMUNICATING WITH A GASEOUS TUMOR ON THE ANTERIOR ASPECT OF THE CHEST, ETC.

BY J. A. LIPPINCOTT, M.D.,
Late Resident Physician in the Pennsylvania Hospital.

R. C. D., æt. 57, a native of Pennsylvania, and a lumberman by occupation, came under my care May 22, 1876, when the following note in reference to the history of the case was made. The patient, who comes of a healthy family, always enjoyed the best of health until six years ago, when he went through an attack of typhoid fever, which left him with a cough, from which he has never recovered. His illness, however, has not prevented him from working at times in warm weather. Last fall the cough became more severe, and the other symptoms—emaciation, debility, etc.—increased so markedly that he was compelled to take to his bed, where he has remained up to the present time. In August, 1875, the right shoulder began to be painful, stiff, and swollen. The elbow, wrist, and finger-joints were then successively affected. Last February a swelling appeared at the upper part of the right chest, which has been the source of a good deal of pain. This swelling has been steadily enlarging.

I found the patient quite prostrate. He had coated tongue, fetid breath, and anorexia. He was much emaciated, and the capillary circulation was quite sluggish, as was evidenced by the cyanotic hue of the whole surface. He had a troublesome cough, accompanied by abundant, greenish, sometimes blood-stained, muco-purulent expectoration. The heart-sounds were feeble, but otherwise normal. There were no febrile symptoms, and the urine, with the exception of an excess of urates, contained nothing abnormal. The right shoulder-joint was stiff, and the slightest movement of it caused much pain. The deltoid muscle was flattened so much as to suggest a suspicion of subluxation, but examination showed that the head of the humerus was in its socket, and that the flattening of the muscle was due to atrophy from disuse. A marked degree of false anchylosis was found. The elbow was stiff but movable. The wrist and finger-joints—indeed, the whole hand—were very much swollen, and motion was possible in them only to a slight extent.

On inspecting the chest, a uniform swelling was seen on the right side, circular in outline, about five and one-half inches in diameter, projecting about two inches at its centre, and extending from the lower border of the clavicle downwards, and from the right margin of the sternum outwards. It was more decidedly bluish in color than the surrounding parts, tense though elastic to the touch, and tympanitic on percussion. Satisfactory physical exploration of the chest in the region covered by the tumor was impossible, on account of the tenderness of the parts and the debilitated condition of the patient; and for the same reason the chest immediately above the tumor could not be thoroughly examined; but the loud gurgling, cavernous breathing, and tympany elicited over an extended area on very light percussion, demonstrated the existence of a cavity of considerable size and superficial in location. Some impaired percussion-resonance, with harsh respiration, prolonged expiration, and a few moist râles, indicated that the upper part of the left lung was also invaded.

Quinine, cream punch, porter, nourishing diet, and a mixture containing dilute muriatic acid and pepsin, were ordered, with an occasional opiate to relieve excessive pain and coughing; and a week later, as the man's condition was considerably improved and as the pain in the tumor seemed to be undiminished, I applied the aspirator and removed the contents, which consisted of inodorous air. After getting rid of the "inflation" and coming down to a "hard" basis, it was seen that the pectoral muscles were atrophied—presumably from the pressure exerted by the contents of the tumor—to such an extent that there now seemed no covering over the ribs other than a cutaneous one. The patient expressed himself as much relieved, and it was possible to make a more careful examination of the chest, which resulted in the conclusion that the vomica extended at least from just below the clavicle to the upper margin of the third rib. After the operation light pressure was applied, but this did not prevent a small degree of extravasation of air into the subcutaneous areolar tissue; this, however, was soon absorbed. Two days after the tapping, slight tumefaction reappeared during a violent fit of coughing, and it has remained since that time, but the swelling has never attained to its original dimensions. At times the communicating fistula seems comparatively pervious, and then the patient can, by pressure, return the contents of the tumor into the pulmonary vomica. I have been able to do this by pressing with the side of my head, and in this manner I have found it possible, by hearing the gurgling noise of the returning air, to fix—approximately at least—the location of the fistula, which is probably at the upper edge of the second rib, about one inch and a half from the margin of the sternum.

The subsequent history of the case is briefly as follows. When the patient had developed sufficient strength and courage, manipulation

and friction of the anchylosed joints were instituted and continued, with the result of dissipating the swelling in the wrist and hand and restoring a considerable and most useful degree of motion in all the joints affected. The inflammatory action invaded the left wrist, but subsided quickly after, and possibly on account of, the exhibition of salicylic acid in small quantities dissolved in Huxham's tincture. About the middle of June the patient was able to go out, and also to retain and digest cod-liver oil, and from that time the cough and expectoration have appreciably diminished, and the patient has gained in strength and flesh.

Remarks.—The chief point of interest in this case is of course the tumor. Almost all writers speak of the frequency with which pleural adhesions are found when the destruction of lung-tissue is at all extensive, these adhesions being the means by which ulcerations into the pleural cavity, together with the consequent pneumopyothorax, are prevented; but there are comparatively few cases on record in which ulceration beginning in the lung has extended through the thoracic walls; and no author to whose writings I have had access alludes to the possibility of such ulceration resulting in the formation of a circumscribed swelling containing air. Dr. James H. Hutchinson, one of the physicians to the Pennsylvania Hospital, in an article on "The Local Treatment of Pulmonary Cavities by Injections through the Chest-Walls" (*Philadelphia Medical Times* of May 30, 1874), refers to a case—alluded to by "Discipulus," in a series of papers published in Nos. 60, 171, and 180 of the *British Medical Times*—in which a cure is said to have followed the spontaneous evacuation of the contents of a vomica through the walls of the chest. In the same article Dr. Hutchinson quotes a case, reported by M. Bricheteau, in which, as a consequence of the application of the actual cautery to the chest, a pulmonary cavity was opened and emptied of its contents.* In the *New York Medical Journal* for January, 1876, appears a brief account of a case of a perforation in the chest-wall in connection with a phthisical cavity. The point of perforation was beneath the clavicle, about two inches from the sternum, and from it, on forcible expiration, air and fluid issued. Before the February number of the *Journal* came out, the patient had died, and at the autopsy a cavity the size of a hen's egg was found, which opened between the first and second ribs. The pleura was adherent around the perforation, but in no other place. Dr. Morris Longstreth has called my attention to a case of "Lungenabscess mit allgemeinem Hautemphyzem," reported by Dr. H. Senator in *Virchow's Archiv* for 1872, vol. liv. p. 278:

During the siege of Metz, a Hessian soldier was admitted into hospital for dysentery on the 8th of September. On the 10th, some percussion-dulness was noticed below the inferior angle of the left scapula. The lung-changes went on to softening, which, however, was not detected during life. On the morning of the 17th both sides of the face and neck, the greater part of the trunk in front and behind, and the left arm, were found to be emphysematous. By the 19th, the date of the patient's death, the emphysema had extended over the right arm and down to the thighs. At the necropsy an abscess, the size of a fist, and surrounded by very firm adhesions, was found at the posterior portion of the lower lobe of the left lung, which communicated with the subcutaneous tissue by at least one small opening situated in the ninth or tenth costal interspace, about two inches from the spinal column.

In this case the ulcerative action, which was acute, rapidly made its way through the deep structures to the subcutaneous space occupied by the loose areolar tissue, whereas, in the others alluded to, the inflammatory process was in all probability sufficiently chronic to permit of the gluing together of the superficial tissues, thus effectually preventing the occurrence of corporeal emphysema. The peculiarity of the case now for the first time reported lies in the fact that the destructive process was so chronic as to allow of the gradual distention, with air, of tissues at least as deep as the fascia lining the greater pectoral muscle.

On first looking at the tumor, and seeing also the swollen joints, the thought flashed across my mind that it was a metastatic abscess. This idea rapidly gave way to the suspicion of its being a collection of pus communicating with the lung-cavity. A single tap, however, eliciting a distinctly tympanitic sound, revealed the true character of the swelling. That the collection was beneath the deep structures, and not in the subcutaneous areolar tissue, was established by the absence of crepitation, and by the fact that the tumor was circum-

* Valleix, Guide du Médecin Praticien, p. 800.

scribed, being limited at the sternal margin by the origin of the pectoralis major. In fact, before the aspirator was used the pain was most intense along the margin of the sternum, and was doubtless due to the forcible stretching of tendinous fibres of the muscle at its place of origin. The fact that pus did not escape from the vomica into the swelling is to be accounted for by the probable hypothesis that the opening was small and slit-like; and further examination showed pretty conclusively that it was not at the lower part, but well up on the anterior wall of the cavity, and that there was a free outlet for the secretions through the bronchial tubes. In view of the following facts,—that the tumor was directly over the vomica (which was extensive); that it was reproduced, after tapping, by violent coughing; that it could be made to disappear by pressure; and, finally, that on applying the ear to the chest in a certain region, and simultaneously making pressure, the peculiar sound of the air passing into the vomica could be distinctly heard, —it was clear that the pulmonary cavity communicated with the extra-thoracic collection of air through an opening in an intercostal space, and constituted, indeed, its *fons et origo*. I may add that Professor Da Costa, who saw the case, lent the weight of his opinion in favor of this conclusion.

As to the local treatment, aspiration was of course indicated as a means of securing temporary relief; but was no radical treatment to be attempted? Should I have injected tincture of iodine, or some other irritating fluid, with a view to setting up adhesive inflammation? I thought not, because, in the first place, some of the fluid might find its way into the vomica and interfere with the favorable progress of the case; and in the second, considering the general debility and the inactivity of the circulation, I feared that suppurative inflammation might be induced which might lead to a communication between the vomica and the external air through the thoracic wall, an event for which I did not feel prepared. There remained what, to my mind, was the safest plan of treatment, namely, by elastic pressure; but the patient preferred to delay the application of the necessary apparatus, and it was not made use of systematically. The tumor, however, has not given him much trouble; if it does, I shall resort to pressure (preceded, if necessary, by aspiration), by means of raw cotton or soft sponge confined with adhesive strips.

In regard to the administration of salicylic acid, although I have not heard of its being given in cases of pyæmic arthritis, I claim no originality on that score, since the drug has been prescribed of late in so many and so diverse affections, for reasons philosophical and unphilosophical, that it would be strange indeed if it had not long ago been used as a remedy in this form of joint-inflammation.

* * * * * *

Since the above was written, the swelling has opened spontaneously. The patient, whom I had not seen for about ten days, sent for me yesterday, and, when I arrived, informed me that for several days he had had a good deal of pain in the tumor, and that "it was hot enough to cook an egg," —a new feature. He also stated that about two hours before my arrival an opening had formed, from which there came a medium-sized cupful of yellowish matter. This had, unfortunately, been thrown out, so that I had not an opportunity to examine it; but his wife said that some of it was stringy and tenacious. I expressed a small quantity of pus mingled with bubbles of air, and found the former not markedly unhealthy. The opening was over the sternum, near its right edge, on a line with the second intercostal space, some two and a half inches from the point where the aspirating needle had been inserted, which was at the most dependent portion of the swelling. The man was much relieved by the escape of the contents of the tumor, but said that he felt faint and slightly nauseated.

What had taken place? Clearly, the intercostal opening, which, for some inexplicable reason, had previously remained small in size, with comparative suddenness —probably during the past week—attained sufficient calibre to allow of the passage of the secretions of the vomica. These have produced suppurative inflammation in the hitherto quiescent tumor, which process has resulted in the usual way. We have, therefore, *a vomica in the lung, communicating with the external air through what may now be regarded as an abscess in the thoracic wall.* I shall probably enlarge the external opening and syringe out the abscess, and thus, indirectly, the vomica, with carbolic or salicylic acid solutions,

and I shall expect to find, in the sputa expectorated, considerable quantities of the material injected.

The further progress of this interesting case I shall at some future time beg the privilege of laying before the readers of the *Times*.

3715 Lancaster Avenue, Sept. 28, 1876.

THE VARIATIONS OF THE PULSE, AND THEIR INDICATIONS.

INTRODUCTORY REMARKS BY DR. HORACE Y. EVANS.

MR. PRESIDENT AND GENTLEMEN: The employment of the sphygmograph, though of very great importance as an auxiliary in studying the pulse, is, however, a refinement not practicable to us as general practitioners.

My remarks this evening, therefore, will apply solely to those variations recognizable by the touch.

The simple definition that the pulse consists not in an enlargement, but in the filling up of the vessel with blood, is as applicable to the abnormal as to the normal pulse.

To define what constitutes the normal pulse of an individual whose habits and peculiarities are familiar to us, is easy and can be done definitely. But the varieties of habit and constitution are so protean that it is only possible to make a general approximation to a normal standard, either as to *frequency*, *force*, or *regularity*.

The standard as to frequency generally accepted is about as follows: In early infancy there are about 140 pulsations per minute; in the 2d year they fall to 130; in the 9th year to 90; at 15 years to 82; at 40 years they will be 75; and from the 50th to the 60th year they will average 60 per minute.

We have met with a number of individuals in whom all the extremes of variation existed without apparently disturbing their general health. Yet, if we accept the standard just mentioned, we can assert that, as a rule, any marked deviation above or below it is indicative of disease, and, further, that all constitutional disorders are attended with a pulse either above or below said standard. The heart, being so immediately dependent upon the sympathetic nerve for its stimulus, is the first organ to take cognizance of any disturbance of that system. In this fact alone we have the key to almost all pulse-variations. To attempt to trace back and explain the origin of the disorder of the nerve-centre is foreign to our subject, and would be a task too extended for the present occasion. My object is simply to call your attention in a general way to some of the varieties of the pulse and their indications.

First, then, as to *rate*. The instances in which the pulse falls far below the normal standard as a result of disease are few, and are generally premonitory of dissolution, as in some cases of apoplexy, in the later stages of relapsing fever, in certain conditions of aneurism, and as the result of poisonous doses of certain drugs. With rare exceptions it is accompanied by loss of consciousness, and indicates a profound nervous lesion. As a slow pulse threatens danger to life, so can it be as truly said of a *continuous* and *excessively rapid* one.

The earlier this condition appears in a disease, so much the more dangerous are its premonitions. Instead of paralyzed nerve-centres we have excessively irritable ones, and instead of anæsthesia we find hyperæsthesia.

It characterizes alike the sthenic and the asthenic states.

The general result of this excessive acceleration is an elevation of the temperature,—the two essentials of the febrile state,—eventuating in increased metamorphosis with an arrest of elimination of excretæ.

We have, first, morbid blood, then deranged nerve-supply to the heart and blood-vessels; and, consequently, a fast pulse, preternatural heat, and rapid disintegration or tissue-change.

Fortunately, however, for our patients, a rapid pulse, if not *too long continued*, does not necessarily indicate serious danger.

It is the daily experience of most of us to have patients greatly excited over periodic attacks of rapid and violent action of the heart; yet we deem it of no serious significance.

In many cases this condition indicates disorder of some sympathizing organ. We are all familiar with the occasionally rapid pulse of the dyspeptic.

The sympathy existing between the heart and the stomach is more than neighborly.

The normally acting heart requires a

normal nerve-supply from the nerve-centre. The latter organ needs the stimulus of healthy blood, this again to be healthy demands good digestion and assimilation; hence a mutual dependence; and it is exceptional to have a diseased stomach not attended with a rapid pulse.

Again, we meet with instances of rapid pulse occurring at short intervals in healthy persons. The cause seems to exist in a congenital sensitiveness of the sympathetic nerve system. Such cases are liable to attacks of syncope when exposed to depressing influences. Excessive venery and the use of tobacco simulate this condition, and when associated with it generally result in dilatation of the left heart.

Next we have deviations in the *force* or tension.

The fallacies of the pulse are more conspicuous in this respect than in any other; under certain circumstances the pulse may not indicate either the force or the power with which the heart is acting, and as a consequence erroneous inferences may be drawn as to the vital powers.

This discrepancy arises from the varying condition in which the arteries happen to be. If the vessels are relaxed, the tension will be low between the systole and diastole; on the contrary, if the vessels are contracted and small, the tension will be high. The heart may act with the same vigor in both conditions, yet the pulse will vary.

In pulmonary congestions and mitral contractions, the blood flows so scantily into the left heart that the volume expelled is not sufficient to move that already in the arteries; here, again, we have low tension with feebleness.

This want of proportion of force of the impulse of the heart and that of the pulse in the arteries, as a rule, attends diseased conditions of the right side of the heart.

The next variation is in regard to *rhythm*. First, as to *intermissions*. The occasional loss of a pulsation of the heart seems in some cases to be a congenital condition, and not attended with any other symptom of disease.

It varies in import in proportion to the age of the subject.

If in the young, before vices of habit have diseased the constitution, it indicates organic heart-trouble. By far the most fruitful source of this disorder is rheumatism in its varied forms. Among its sequelæ we have permanent patency, inadequacy, contraction, œdematous thickening, and calcareous deposits; which, if of the left side of the heart, will inevitably produce irregularities of the pulse.

We have also deranged rhythm in what is called the *dicrotic* pulse. It consists of a second wave of blood or double pulse from the impetus of but one systole of the heart. It occurs after the maximum of arterial tension has been reached and the descent has commenced. The force is not equal to the first, and the subsidence is more rapid. It indicates a vigorous contractile capacity of the arteries, but a want of harmony in the order of their contraction. It attends diseases of the young and of the middle-aged.

The *quick* pulse is another variety. It consists of a quick filling of the artery, and is attended with an onward motion. It indicates irritation with great strength and freedom of heart's action. The arterioles and capillaries are dilated, and the flow of the blood is easy and rapid. The contrary condition, viz., contracted capillaries and arterioles, causes a damming back and comparative stagnancy of the blood in the arteries; in this condition we find the *prolonged* and *hard* pulse. It is characteristic of dilatation and hypertrophy of the heart.

Occasionally we meet with the *jerking* pulse. It consists of a quick and somewhat forcible beat, followed by an abrupt subsidence. The distinction between it and the quick pulse is that in the former the artery seems to collapse after the beat. It indicates not only deficiency but also permanent patency of the aortic valves, which permits a copious regurgitation during the diastolic period.

The pulse is not always *synchronous* with the first sound of the heart. The normally almost imperceptible interval between the systole of the left ventricle and the pulsation in the radial artery occasionally becomes quite distinct. This condition is noticed in diseases characterized by a slow pulse, and indicates a weakened condition of the muscular structure of the heart and arteries; as in fatty degeneration of the heart and typhoid softening, in atheroma of the arteries, dilatation without hypertrophy of the left ventricle, mitral deficiency, loss of contractile capacity of the arteries, and in large aneurism of the aorta.

TUMOR OF THE LEFT SIDE OF THE PONS: INVOLVEMENT OF THE FEVER OR HEAT CENTRE.

BY B. F. LAUTENBACH, M.D.

ROSALIE F., æt. 36, married, was admitted into the observation-room of Professor Meynert, at the Allgemeines Krankenhaus, Vienna, on July 11. The history given by the patient on her admission gave no clue as to the origin of her malady; parents living, and healthy. She denied ever having had venereal disease; in fact, the only disease she acknowledged to have had was typhus fever in her childhood, following which she was subject for several years to attacks of obtuseness of the mind, or, to put it in her own words, there were times at which her powers of thought and memory were very much diminished. Her menses have always been regular, excepting during her pregnancies, of which she has had five: four of the children were carried to full-born, and are still living, while the fifth was aborted in the fifth month. During the last two months she has been subject to severe cephalalgia, accompanied by double sight, and, as a consequence of the latter, vertigo. She rapidly became very weak, the vertigo constantly growing in intensity until her admission, when it prevented her from walking the shortest distance without assistance.

On her admission, the symptoms which she presented were as follows: paralysis of the left abducent nerve, as shown by a strabismus convergens of that eye and the presence of double pictures; a paresis of the whole of the right facial nerve, with hyperæsthesia on percussing the skull in the left frontal region, and anæsthesia of the frontal branches of the trifacial. There was also a slight interference with her speech, which the patient stated had but recently manifested itself. The loss of appetite and vomiting continued, notwithstanding all the means which were employed to relieve the patient of these distressing symptoms.

July 13.—The patient has lost all knowledge of her surroundings, passes fæces and urine into the bed, and is very restless. She has had several slight attacks of convulsions, involving the upper extremities, more especially the right. She moves her right arm and leg much less frequently and with less energy than the left. The respiration and pulse are regular, the latter numbering 76 per minute. The temperature on the evening of the 12th was 39°.4; on the morning of the 13th, 40°; in the evening, 40°.2.

July 14.—In the morning very marked cyanosis; pulse and respiration irregular, but not increased in frequency; slight spasmodic twitchings in the upper extremities. Morning temperature, 40°.04. Death at 8 P.M.

Autopsy, twelve hours after death. The meninges over the left half of the pons were agglutinated and very much thickened, the corresponding portion of the calvareum slightly roughened, while on the corresponding side of the pons the normal brain-substance was found to be substituted by a grayish-red mass, which on microscopic examination presented the characteristics of a gumma. The lower third of the pons was comparatively normal; still, the encroachments of the tumor here were plainly visible; the medulla oblongata, however, had not in the slightest been involved. The arteries of the pons were diseased, and contained liquid blood.

The hypophysis cerebri was enlarged, and in its interior was found an abscess about the size of a pea; the walls of the cella turcica roughened.

Neither in the thoracic nor in the abdominal viscera were there any further evidences of disease found.

Remarks.—The above case presented the typical symptoms of a tumor of the pons, and as such it had been diagnosed when admitted into the observation-room. Its great interest lies not in the nature nor in the ordinary symptoms of the disease, but in the sudden rise of temperature which commenced the second day after her admission (the third before her death) and continued until her death. On admission her temperature was found to be normal (37°.2 C.); the following evening it had risen to 39°.4 C. (102°.46 F.); the next morning, 40° C. (104° F.); in the evening, 40°.2 C. (104°.18 F.); the following morning it was 40°.4 C. (104°.36 F.). This was the last record taken, as in the evening the patient was already moribund.

This steady rise in the temperature, without a corresponding effect on the circulation, can only be explained on the theory of a heat-centre in the pons, the presence of which has been rendered very probable, if not absolutely certain, by the experiments of Heidenhain, Tscheschichin, H. C. Wood, and others. This rise cannot be explained on the theory that the vasomotor centre was involved, for, though the temperature steadily rose, the circulation remained uninfluenced until several hours before death, when it became irregular,—an involvement of this centre without influence on the circulation being an impossibility.

As the lesion in the above case was limited to but one side of the pons, an interesting point should have been determined, which, unfortunately, did not occur to me at the time,—namely, whether one side of the body was warmer than the other, and

whether the extremities were warmer than the body of the same side, or vice versa, it having been shown many years ago, by Schiff and others, that when a half-section of the lower portion of the pons is made, the temperature of the extremities, from the knee to the foot, on the side opposite to the side of section, is much higher than the temperature of the same parts on the side corresponding to the side on which the section was made, while as to the rest of the body the opposite holds true, showing that some of the fibres concerned in the heat-producing function decussate below the pons, while the majority either decussate higher up, or not at all, which latter is not probable.

My thanks are due to Professor Meynert and Dr. Schlangenhausen for their kindness in affording me opportunity to observe, and for permission to make use of, the above case, as well as for many other evidences of friendship.

HYDROBROMIC ACID.

BY ALLAN McLANE HAMILTON, M.D.,

Visiting Physician to Epileptic and Paralytic Hospital, New York.

DR. WADE,* and Dr. Milner Fothergill,† of London, have already presented their views in regard to the value of this new remedy, and, after a series of physiological and clinical observations, I am prepared not only to endorse all that they have said, but also to direct attention to other conditions than those already mentioned, in which its therapeutic excellence is fully proved.

Dr. Wade, who originally brought hydrobromic acid before the profession, prepared it after the formula below:

Tartaric acid, ℥xiii, ℥i, gr. xxxvii;
Bromide of potassium, ℥x, ℥vi, gr. xxviii;
Water, Oiv.

The tartaric acid unites with the base of the potassic bromide, forming the acid potassic tartrate, while the other constituent, joining to itself hydrogen, remains in solution as hydrobromic acid. The action is expressed by this:

$$KBr + H_2C_4H_4O_6 = HK\,C_4H_4O_6 + HBr.$$

The acid tartrate is almost insoluble, and is precipitated, while another tartrate, expressed by the symbols $K_2C_4H_4O_6$, is partially soluble.

The solution should be decanted.

This is the preparation I have used so far, though Miller‡ gives a formula for making the acid, in which bromide of potassium is treated by phosphoric acid.

In appearance, it is a straw-colored liquid, with an agreeable acid taste, and a slight odor of bromine. It combines very readily with many substances, and may be given with tinct. ferri chlor., strychnine, etc. It prevents the headache caused by the iron, when given to persons who are anæmic (Fothergill). It dissolves a large amount of quinine; and Gubler found that the head-effects of that drug were not produced when this combination was employed.

In small doses it acts very much as the bromides do, but with much more intensity. Half a drachm is fully equal to one drachm of the bromide of potassium. It differs, however, in the want of permanence of its effects, the base of the bromic salts seeming to favor retention. In epilepsy it is not serviceable. I have used it in three cases. One case, in which the attacks were monthly, and bromide was administered, was aggravated by HBr. The attacks increased in violence and frequency. Large doses did no good; and it was only in one case that it accomplished anything.

In hysteria, Fothergill found it to be a valuable remedy.

Its indication, I think, is in that form of cerebral hyperæmia which is of sudden origin and dependent upon a disturbed heart-action and general debility. In the nervous condition following the abuse of tea, coffee, or tobacco, alcoholism, insomnia due to congestion, and a number of varieties of disturbed cranial circulation, it is the best remedy I know of.

My own experience in its use has been limited; but from the inspection of the following cases which are briefly sketched, its value will be appreciated.

Case I.—Miss C , aged 24, school-teacher in a large public school-room, many hours. The air is very impure, and towards the end of the day her headache begins. "Her head seems too big for her body," face flushed, eyes red, respiration troubled. (This was the condition before the summer holidays.) A vacation did very little good. She now complains of the same symptoms. Towards night, her temporal vessels throb, she has "rushes of blood." There has been some dysmenorrhœa. On August 28, she consulted me, when I prescribed hydrobromic acid ℥i t. i. d. Sept. 14,

* Peninsular Journal of Medicine, Feb. 1875.
† British Medical Journal, July 8, 1876.

‡ Miller, Inorganic Chemistry, p. 132.

entirely relieved. A menstrual period was afterwards passed without pain.

Case II.—G. J., 31, clerk. At his desk many hours daily. Complains of confusion of ideas, inability to fix his mind upon his work, indisposed to exertion, smokes to excess, insomnia, and incapacity for work. The top of his head is hot, and the conjunctivæ injected. HBr. ʒi t. i. d. Complete relief in a week. This condition had lasted several months.

Case III.—Mr. D., 36, "man about town." His habits are bad; drinks hard, and keeps very late hours. Is being treated for syphilitic trouble. Has had head-fulness, insomnia, indisposition to take exercise, gradual loss of memory for the past ten years. He formerly masturbated. Very hysterical and worried about himself. There are many dysæsthesiæ, but also evidences of head-trouble. The eyes are red, prominent, and watery, and the temporal vessels stand out like cords. At night his sleep is troubled, and it is some time before he can forget himself. His urine contains phosphatic deposits. HBr. ʒi t. i. d., before eating. Two months after (Sept. 15), perfectly well, except syphilis.

Case IV.—Miss M. E. R., 22. Insomnia is the condition which annoys this patient the most, and when in bed her feet become cold. "It seems," she said, "as if all the thoughts I ever had were crowded into the long weary hours I pass before sleep comes." She fears insanity, and is in a pitiable mental state. The bromides have lost their effect. A drachm and a half of hydrobromic acid procured sleep the first night.

It may be given just as the bromides are, and the observers I have mentioned have used it to allay bronchial irritation, to stop the vomiting of pregnancy, and for other morbid states accompanied by reflex excitement.

Its advantages are its reliability, its ready decomposition in the stomach, and its agreeable form.

I have prescribed it with essence of lemon and sugar, in which form it makes a pleasant drink. It should always be well diluted with water.

123 East 30th Street, New York.

TRANSLATIONS.

A Case of Primary Infectious Inflammation of Bone (Senator: *Berlin. Klin. Wochenschrift*, No. 7, 1876).—The patient was a girl, aged 15 years, and during life it was supposed that she was suffering with typhoid fever. At the post-mortem examination, the lower half of the tibia was found bathed in yellowish-red pus, the same portion of the bone was bared of its periosteum, its lower epiphyseal extremity lessened, and its marrow infiltrated with pus below, and above reddened and permeated with circumscribed purulent deposits.

W. A.

A New Endoscope (J. A. Steurer: *Centralblatt für Chirurgie*, No. 30, 1876).—Steurer thinks that most endoscopic tubes, owing to their length, give but an indistinct image of the parts being examined, and one that is but imperfectly illuminated. He therefore uses a tube that is but 13½ ctm. in length, and, by compressing the pendulous portion of the penis in its long axis, shortens the length of the urethral canal 5 to 6 ctm. This instrument, he claims, can be quite readily introduced into the bladder, and a thorough and satisfactory examination made of the posterior portions of the urethra. W. A.

The Treatment of Synovitis Hyperplastica Granulosa by Injections of Carbolic Acid (J. Schmidt: *Centralblatt für Chirurgie*, No. 35, 1876).—In Strasburg and Bonn parenchymatous injections of carbolic acid in the so-called fungous inflammation of joints have been already tried, with but unsatisfactory results. Schmidt criticises the work of Knöry, and thinks that the improvement as to pain and swelling which he claims for this mode of treatment is not due to it. At least, the cases became worse at a later period, so that some of them were no better than before the beginning of the treatment, and others actually worse. The reason of this, he thinks, lies in the fact that all of these cases but two were not fit subjects for the operation, on account of existing suppuration. Moreover, the injections were omitted for two weeks, and this had an unfavorable influence on the result. The cases which were thus treated in Bonn were also not the most suitable that could have been chosen. In the clinic at Greifswald injections of this kind were made in many cases, and in all of them where the conditions were suitable—that is, where there was no exudative inflammation of the joint—they were of benefit. In confirmation of his views, Schmidt gives the results of the treatment in the following six cases from those treated at Greifswald:

1. Coxitis: no pain after three months; patient discharged, after five months, much improved.

2 and 3. Gonitis: after two and a half

and six months' treatment, respectively, complete recovery.

4. Coxitis: improvement after twenty injections.

5. Gonitis: recovery after three months.

6. Coxitis: recovery after three months. W. A.

CURE OF ANEURISM OF THE ANTERIOR TIBIAL ARTERY BY THE INJECTION OF CHLORIDE OF IRON (Denucé: *Bulletin de la Société de Chirurgie; Centralblatt für Chirurgie*, No. 30, 1876).—This tumor was about the size of a walnut, was situated in the line of the anterior tibial artery, in front of the ankle-joint, and had resulted from a violent strain, to which the parts had been subjected three years previously. The patient was unwilling to have the vessel ligated, and both digital and instrumental compression had been tried, with but a slight degree of success, before the treatment by injection was resorted to. The operation was performed with a hypodermic syringe, and five drops of a solution of the perchloride of iron injected into the tumor. The artery was compressed above and below the tumor for ten minutes, at the expiration of which time all pulsation had ceased. A compressing bandage was applied and kept on for some days, when the cure was found to be perfect. Immediately upon the introduction of the fluid, cramps came on in all the toes, and there was marked redness of the anterior part of the flesh. Both of these, however, vanished very quickly. There was some weakness of the leg for some time, and a sluggish injection of the great toe, which resulted in the loss of the nail of that member. D. advises this mode of treatment only in such cases as this, in which the artery can be compressed with certainty upon both sides of the tumor, and he also advises compression by means of a bandage for some time, to insure the formation of a clot. The strength of the solution used in this case was but 15 per cent. Givaldis thinks it better to use one having a strength of 25 to 30 per cent., as a tougher and more solid clot is formed, and the danger of embolism is less. W. A.

REMOVAL OF NUMEROUS FREE BODIES FROM THE METACARPO-PHALANGEAL ARTICULATION OF THE MIDDLE FINGER (Boeckel: *Gaz. des Hôpitaux*, No. 20, 1876).—The patient was a man 54 years old, who five months previously had received a violent contusion of the back of the hand. A short time after this there was considerable swelling about the articulation named above, and the tumor was thought to be due either to arthritis deformans or a neoplasm, with a tendency to ossification. Under spray, an incision was made through the length of the tumor, and it was found to be due to a dilatation of the cavity of the joint. In it were found some free bodies, composed of hyaline cartilage, and five others, which were partially ossified and attached to portions of the joint. They were all removed and Lister's dressing applied. The wound did well, cicatrization went on rapidly, and there was complete restoration of the movements of the joint. W. A.

ON THE ASSERTED IMMUNITY FROM DANGER IN ASPIRATION (E. Pingaud: *Gaz. Hebdom.*, No. 42, 1875) —Pingaud has, in two cases, found that in the introduction of the needle of the aspirator rupture of vessels, with dangerous hemorrhage, resulted. The first was a case in which the injury was a compound fracture of the skull from a railroad accident. Trephining was twice performed, in the hope of producing an existing depression, but without success. Ten days later, symptoms of intercranial suppuration came on, and Pingaud introduced the needle of Dieulafoy through the dura mater and into the brain, and drew off some brownish pus. The canula was not immediately removed, and a sudden hemorrhage occurred, which was followed by grave symptoms, indicative of serious compression. In order to diminish this pressure, a bistoury was plunged into the cavity of the abscess; pus came out freely, and the symptoms of compression were at once relieved. Death occurred the next morning, and at the examination the cavity was found full of freshly-clotted blood, and the walls of the lateral ventricle were ruptured, and all the ventricular cavities were filled with the same fluid. In the second case the abscess was due to caries of the vertebræ. The canula was introduced, and but little pus, colored by a few drops of blood, drawn off. The tube was at once removed, but the cavity of the abscess was quickly filled with blood, and, upon palpation, fluctuation was quite distinct. This was absorbed in due time, and the case did well. Pingaud remarks that in certain conditions of the vascular system rupture of vessels by diminution of the external pressure is unavoidable. W. A.

MEDICAL TIMES.

PHILADELPHIA, OCTOBER 28, 1876.

EDITORIAL.

THE HEALTH OF PHILADELPHIA DURING THE EXHIBITION.

THE extraordinary efforts which have been made by certain newspapers, of wide circulation though probably of but little influence, to injure the Centennial Exhibition by statements in regard to the health of Philadelphia, are humiliating to believers in the freedom of the press. The truth is, that the city has been this summer extraordinarily healthy, and that the water-supply and the general hygienic arrangements have stood the very severe test so well as to reflect credit upon the city authorities, and to demonstrate the great value of the homestead method of living practised in this city. The minimum death-rate is evidently to be obtained not by means of "people's palaces," or gorgeous "flats," but by small, separate dwellings, in which the independence and self-respect of the working-class are maintained by the home feeling. It must be remembered that as many people visited the Centennial in the first five months after its opening as were at the Vienna Exposition during its whole existence. Much of the time Philadelphia has had, at least, one-third more than its usual number of inhabitants; yet its death-rate will compare favorably with that of almost any other city in the world. The summer of 1875 was cool and pleasant. In Paris, during the corresponding period of last year, the death-rate was 25.16 per thousand; in London, 23.48 per thousand. Notwithstanding the intensity of this summer's heat in Philadelphia, the death-rate has been 23.48 per thousand. Comparing this with the rate of the large Northern cities of the United States, we find that in all of them the mortality has been greater, and that in New York it has risen to 30.43 per thousand.

Forced to meet these facts, one of the New York dailies asserts that, although there are fewer deaths in this city, there is vastly more sickness than in the great metropolis. As is well put by one of our city newspapers, the lesser number of deaths in the greater number of cases proves how much better the Philadelphia doctors are than those of New York. Although we feel this superiority, truth requires us to acknowledge that our New York friends have magnified the number of our cases. The newspaper accounts of the frightful risk to be run in seeing the Centennial have had a great effect; not in diminishing attendance at the great exhibition, but rather in alarming those who congregate to it. The desire to see it is so deep-rooted that the multitude comes, although it may feel like an army going to the conflict. The precautions taken by some of the fearful ones are very amusing. One party we know of brought a cask of the notorious Croton water, and persisted in drinking it at the table-d'hôte and elsewhere, although by standing it had become fairly putrid. Another family, staying fifteen miles away from the city, in a hilly district full of springs of the best water, receive daily their beloved and trusted Croton, bottled at their residence in New York. Ephraim truly is joined to his idols. The hotel-keepers, wine-merchants, etc., owe a debt of gratitude to the New York press, as the extra demand for claret at the table helps in no mean way to fill the general exchequer.

It is indeed true that a number of people have gone home from the Centennial sick or have been taken sick shortly after visiting it, and also that cases of typhoid fever are rather more frequent here than usual. The causes of these facts seem very patent. The whole country is suffering from a slight epidemic of typhoid fever. It is the regu-

lar time of year for this disease to be abundant, and the statistics of all our Eastern cities point to its undue prevalence.

To any one who has watched the Centennial throngs, the wonder is not that some of them are sick after returning home, but that comparatively so few suffer seriously. Numbers of them are evidently unaccustomed to travel, and the chief part of the remainder seem to have left behind whatever of sense nature and experience have developed in them. A very large number of the hardest-working of the people of the United States, from the school-mistress to the President, are accustomed to make up for excessive wear and tear during the remainder of the year by a summer's rest. This year they have spent their vacation at the Centennial, and, after one or two weeks of the hardest possible work, they wonder why they have not recuperated as usual. Travelling day and night to get here; on their feet ten hours a day, with every sense and every intellectual function in the utmost tension; in the evening studying guide-books or catalogues, writing notes or letters, perhaps attending theatres or opera or engaged in dissipation; eating all sorts of food at all sorts of hours; sleeping badly in strange and not always comfortable or uninhabited beds; burning the candle at both ends and in the middle, they wonder why it is they don't improve, and, rising haggard and worn, they read the *New York Herald* and curse the benighted Philadelphians who will drink Schuylkill water, and who in their prejudice fatuously appeal to chemical analyses and physical properties to prove its superiority.

The First Blood.—The Royal Society for the Prevention of Cruelty to Animals have arrested, and had fined one shilling and costs, a Dr. Abrath, of Sunderland, who announced a lecture on Antimony, with illustrative experiments. The vivisection bill had been in operation three days.

MEDICAL SERVICE AT THE CENTENNIAL.

THE medical service at the Centennial, although it has been the target for many reportorial arrows, has done an immense amount of good, chiefly in relieving transient and not serious ailments, but in a number of cases in affording relief at just the moment when it was necessary for life. Experience has verified the wisdom of its director, Dr. Wm. Pepper, and of those in authority, who accepted his advice in making the organization that which it is. It will be remembered that there is a surgeon to the guard, who has his headquarters with the regular staff, and acts on occasion as assistant. The regular staff consists of the director, who has no other than general duties, receives no salary, and spends very little time at the grounds, and six medical officers, who are salaried, and who relieve one another at stated intervals, so that each is on duty for three hours a day three days in the week. There are also several orderlies detailed to act as apothecary, assistants, nurses, etc., and a matron, or female nurse.

The organization which has been selected at Paris for the Exhibition of 1878 is different, and perhaps more suitable for the locality. There is to be a physician-in-chief, who will take up his headquarters at the Trocadero so soon as the work begins, and who is to have two medical assistants and two male nurses. In this country a woman nurse would be considered indispensable. With what seems an amazing liberality, a regular provision has been made for allowances, compensation, and, in event of death, indemnity of the relatives of those injured upon the grounds,—if indeed the statements made are correct.

Dr. Francis Sibson recently died very suddenly and unexpectedly. He was found in the lavatory of a hotel insensible and dying. The cause of death is thought to have been the rupture of a previously unsus-

pected thoracic aneurism. He was a very successful London practitioner, and also very active in so-called "medical politics." From 1866 to 1869 he was president of the council of the British Medical Association, and in the latter year was elected permanent vice-president of the Association. He was a rather prolific medical writer, contributing many papers to "Transactions" and medical journals, and especially renowned for his work on Medical Anatomy. It is stated that during the last three years of his life much of his leisure was occupied in the preparation of monographs upon pericarditis and endocarditis, which are to form a portion of the final volume of Reynolds's Practice, long promised and now stated to be shortly forthcoming. At the time of his decease he was sixty-one years of age.

Dr. Laycock died, in the sixty-fifth year of his age, of pulmonary phthisis, on September 21, after an illness whose final outbreak lasted five months, but whose first threatenings dated twenty years before. His first paper was written in 1837, and the whole number of his contributions is stated to have been about three hundred. In 1855 he was elected Professor of the Practice of Medicine and of Clinical Medicine in the University of Edinburgh. The general line of his thought and the greater part of his consulting practice were in the diseases of the nervous system. As a lecturer he was not very popular with the average student, but he always attracted to him the best minds of the class, and is said to have influenced such to a remarkable degree.

Professional Infallibility.—His Holiness, it would seem, is not the only infallible personage in Italy. At a late celebrated trial before the Assize Court of Florence, involving a question of legal medicine the official medical expert exclaimed in full court, "*Se sbaglio io, sbaglia la scienza.*" "If I am wrong, so is science." We are indebted to a pamphlet recently received from Professor Filippo Pacini, of Florence, for this anecdote.—*Medical Examiner.*

CORRESPONDENCE.

New York, October 14, 1876.

To the Editor of the Phila. Medical Times:

Dear Sir:—In all the medical mills the annual process of grinding has commenced; and in each, we believe, the whole mass of complicated machinery is now in smooth running order. Bellevue and the University schools resumed operations in the latter part of September, with introductory addresses by Profs. Crosby and Arnold, and the College of Physicians and Surgeons on October 2, with an address by Prof. Francis Delafield.

The numerous societies, too, have all launched boldly forth upon the sea of expectation (to change the figure of speech rather abruptly), and spread their utmost stretch of canvas to catch what favoring breezes they may from the activity and zeal of their various adherents; though the chances are that some of them, at least, will get woefully becalmed, if not befogged as well, before the season is over.

The first autumnal meeting of the County Medical Society was held September 25, when Dr. S. A. Raborg read a paper on "The Induction of Premature Labor in Contracted Pelves: Its Necessity and Safety in Cases ascertained prior to Full Term;" which was a conscientious production, though it did not reveal any points with which obstetricians are not already familiar.

At the first meeting of the Neurological Society, Dr. Pooley read an interesting paper on "*Hemiopia;*" and at that of the Academy of Medicine, Dr. George Bayles read one on "*The Malady of Innutrition.*" In the latter the aim of the writer was to show the effect of insufficient and improper alimentation upon individuals and the community at large. The destitution in this country, he said, was now greater than ever before, owing to the long-continued financial depression; and there was a large class of paupers now in every community that would, in all probability, never be any better off. This is a new element in a nation like ours, where there has heretofore been such unlimited abundance, and reduces the general population more nearly to the level which has so long existed over the greater part of Europe. Dr. Bayles did not dwell on the subject of infantile malnutrition, which is already so familiar to the profession, but went on to speak of the evil effects of defective nutrition on adolescent and adult life. During the past year he had seen a large number of cases of diphtheria among the poorer classes, and almost without exception found that they really depended on faulty nutrition. Here proper food was the best medicine for the patient, and medicine became food. A large class of diseases has been found to have greatly increased with the suffering among the poor, and notably those of a wasting nature,

such as phthisis. Among others may be mentioned various nervous affections, such as hysteria and neuralgia; and uterine disorders have also become much more frequent. But not only is a lack of food to be taken into consideration, but also improper kinds of aliment and their improper preparation; which affect the higher as well as the lower classes of society. The writer alluded especially to the inappropriate food so frequently given to pupils in our fashionable city boarding-schools, to whom it is so essential to have the most wholesome nourishment.

From individuals and families, Dr. Bayles went on to speak of the deleterious effects of innutrition upon communities and upon futurity, and, in treating of the remedies which ought to be adopted to counteract these, mentioned three subjects which should be taken into consideration: *first*, the laws of heredity; *second*, the laws of longevity; and *third*, communal contentment. With all these defective nutrition, if prevalent, interferes in the greatest degree. He concluded by making several practical deductions (one of which was that physicians ought to be efficient sanitary monitors as well as good therapeutists), and a number of suggestions, some of which were rather utopian in character, for improving the condition of society generally.

Dr. Gouverneur Smith thought the doctor laid too much stress on the matter of alimentation, and that other sources for the deterioration of the health of the community ought to be taken into consideration, such as temperament, idiosyncrasy, loss of sleep, lack of ventilation, close application, mental worriment, the excitements of fashionable life, intemperance, etc.

Dr. Peaslee was of the opinion that the importance of innutrition could not be overestimated. Not only does it simply interfere with a wholesome heredity, but it fosters a distinct and malign influence (manifested in phthisis, cancer, etc.) on posterity. Nutrition is really of prior importance to either circulation or respiration, because it *first* makes blood; *second*, causes it to circulate; and *third*, leads to assimilation.

At the first meeting of the Medical Journal Association, Dr. P. Brynberg Porter read a paper on a "*Comparison of Various Methods of Treatment in Pertussis*," in which he stated that in 1872 and 1873 he published papers on the use of chloral in this affection. In these he had expressed the opinion, based on a considerable number of cases in which he had tried it, that this remedy had a marked effect in alleviating the symptoms of whooping-cough, and in a large number seemed to really cut short its duration to a very appreciable extent; and he now mentioned that after giving it a still further and altogether very extensive trial he had seen no reason to change his views in regard to it. In his second paper he had alluded to the successful treatment of the disease by the use of the fluid extract of castanea vesca, by Dr. T. D. Davis, at the suggestion of the late Dr. Parry, of Philadelphia, and also by quinine, in the hands of Dr. B. F. Dawson, employed in accordance with the views of Prof. Binz, of the University of Bonn; but it was not until a considerable time after its publication that he began to make experiments for himself with these agents. In order to make the comparison of the different remedies tried as satisfactory as possible, he first presented a number of cases in which chloral was employed; remarking that, as a rule, the chloral was commenced about the end of the first week of the paroxysmal stage, and that in all its effect was marked in its immediate influence on the distressing symptoms; while the duration of the disease would doubtless have often been still further shortened had the remedy been used with sufficient pertinacity. Whooping-cough, when left to itself, he remarked, rarely ran its course in less than two months. Out of eight cases, the whooping entirely ceased in the first four in from five to six weeks, in the fifth and sixth cases in a week, and in the seventh and eighth in one or two days after the chloral was commenced.

Dr. Porter next detailed some cases in which he had used the quinine treatment, and stated that, without assenting to the views of Prof. Binz in regard to the pathology of pertussis, which Dr. Dawson has adopted, he had always strictly observed the rules which the latter has laid down for the administration of quinine in this affection. (See the *American Journal of Obstetrics* for February, 1873.)

The results obtained in these cases, notwithstanding the fact that sometimes the treatment could not be properly carried out, were excellent as a rule.

Proceeding now to the treatment by castanea, he detailed first a number of cases in which it acted very happily, completely controlling the paroxysmal stage in from one to four weeks, and then a second series in which the remedy seemed to prove of little or no service. He believed that if he could have preserved accurate records of all his cases treated by the three remedies, some definite conclusions as to the time required for the control of the disease by each agent could probably have been arrived at. Still, from an analysis of those which he had presented, he thought it would be found that in the average number of cases, where either of the remedies seemed to be of advantage and was given early, the paroxysmal stage was about three weeks in duration. In some instances it was much shorter, and in others considerably longer than this. In comparison with the others, however, he had found that castanea failed in a much larger proportion of the cases in which it was tried than either chloral or quinine. But in those cases in which it was

really of benefit, its action seemed quite as efficient as that of either of the others. After his more extended experience, he said, he could only reiterate what he had said in his last paper on pertussis, when he had made personal trial of only the chloral: "With three such excellent agents as castanea, quinine, and chloral, it seems to me that whooping-cough ought no longer to be such a formidable adversary as it has hitherto been generally considered; for if one fails, we have the others to fall back upon." He could see no objection to combining any two of them in troublesome cases; though he had hitherto generally confined himself to the use of one at a time, so as to observe the individual action of the remedy in each instance.

After alluding to the uncertain state of the pathology of pertussis, he mentioned a number of other methods of treatment which had been lauded by various authorities. Among the agents tried was the iodide of silver, which has been used with success by Dr. Robert Bell, of Glasgow, who does not attempt to explain the precise action of the remedy, but, believing that whooping-cough is a disease of the gastric periphery of the pneumogastric nerve, thinks the silver-salt acts as a sedative to this morbidly sensitive nerve, preventing reflex irritation being conveyed to its pulmonary ramifications. Wilde claims that he can cure any case of the disease within eight days by the following treatment. The patient is not to leave the room, and at every access of coughing is to hold before his mouth a small piece of cloth folded several times, and wet with a teaspoonful of the following solution: ether, 60 parts; chloroform, 30 parts; turpentine, 10 parts.

Dr. Porter concluded by relating a case in which he had tried the method of a single complete etherization, as recommended in a recent paper read before the New York Neurological Society by Dr. S. D. Powell. To his chagrin, he found that the procedure had no effect whatever on the symptoms or course of the disease.

At the second meeting of the Medical Journal Association, Dr. Edward Frankel read a report on *Pulmonary Diseases*, the greater part of which was devoted to the consideration of thoracentesis (by aspiration and otherwise), cancerous deposits in the lungs, and pulmonary syphilis. In regard to the last-named, the diagnostic value of dulness on percussion over the middle lobe of the right lung (due to infiltration) was dwelt upon, and it was stated that one observer had found this present in twenty-seven out of thirty cases.

At the meeting of the Medico-Legal Society, October 4, the following officers were elected: President, Frank H. Hamilton, M.D.; First Vice-President, Hon. George H. Yeaman; Second Vice-President, Charles S. Wood, M.D.; Recording Secretary, George W. Wells, M.D.; Chemist, R. Ogden Doremus, M.D.

On October 10, Professor Lister, who arrived from California the night before, delivered a lecture, partly clinical, at Charity Hospital, Blackwell's Island, before one of the largest classes ever gathered in the amphitheatre there. In it he gave a concise and lucid explanation of the principles of antiseptic surgery, with which the readers of the *Medical Times* are, doubtless, already sufficiently familiar, and then proceeded to open and dress a bubo in accordance therewith; laying great stress on the strict observance of the minutest details of the process, which is quite essential to success. He sailed for England on the Bothnia, October 11.

At his last clinic at Bellevue Hospital, Professor Gouley presented a couple of very interesting cases. The first was a young man whose urethra had been completely severed at the junction of the bulbous and membranous portions by a fall. When first seen, forty-eight hours before, there was a very extensive extravasation of urine into the perineum and scrotum, and the patient's condition was one of imminent danger. Dr. Gouley at first endeavored to pass a catheter, but, all his efforts resulting in failure, aspiration was resorted to, and the bladder successfully evacuated. He incidentally warned the class against giving an anæsthetic before attempting to pass the catheter in such cases, on account of the great danger of the distended bladder's being ruptured during the patient's struggles; considering it infinitely better that a little pain should be inflicted than to run the risk of such an accident. When the urine had been drawn off, the patient was etherized, and he then made a very free incision from the anterior border of the anus through the whole space of the perineum and for a very considerable distance up into the scrotum. This had procured complete drainage; so that the parts were already beginning to assume their normal appearance, and the condition of the patient was excellent. Dr. Gouley now never permits a catheter to remain in the bladder; believing that such a practice is productive of great evil. The instrument soon becomes encrusted with urinary deposits, and ulceration and cystitis are almost invariably induced. In this case it was expected that the urethra (the membranous portion of which had been completely laid open by the operation) would heal by granulation. A large sound (No. 18, English scale) would be passed at first every other day, and afterwards once a week, and narrowing of its calibre thus prevented. It was possible that a urinary fistula might result here; but it was too soon to say what would be the final condition of the parts.

The second case was a lad of about sixteen, who was suffering from injuries inflicted by a very extraordinary kind of enema which was administered to him on the 4th of July last. On this occasion some maliciously-disposed individual placed the muzzle of a large pistol

charged with gravel-stones at his anus, and deliberately pulled the trigger; occasioning, as may readily be imagined, a very confused and uncomfortable state of affairs in the vicinity of the boy's fundament. In the course of time, however, the injured parts all healed up, though ever since the accident he has voided his urine by the rectum. On examination, it was found that a sound would pass for six inches into the urethra, when it came to a sudden stop, and that there was a small fistulous orifice in the anterior wall of the rectum, about an inch above the anus. It was impossible, however, to pass even the smallest probe through the latter into the bladder; though this might be due to the great tortuousness of the canal. No other opening whatever could be discovered through which the urine might make its escape. This fistula has recently showed a tendency to heal up, and only a day or two before the patient had suffered from retention of urine, which it was necessary to relieve by means of the aspirator. By rectal exploration it was thought that the remains of the prostate could be detected, though this was not made out with certainty.

After consultation with Professors James Wood and A. B. Crosby, who were present, Dr. Gouley made a free incision in the median line of the perineum, and cut down upon a sound which had been passed into the urethra by the meatus urinarius. Then, having passed the extremity of the sound out through the perineal wound, he inserted a silk suture through the remains of the urethral wall on each side, and, using these as guides, endeavored to find the continuation of the canal, if possible. Entirely failing in this, however, with a small straight bistoury he cut upward through the firm cicatricial tissue lying just anterior to the rectum, and finally succeeded in getting into a pouch which he believed to be a portion of the bladder; though of this he could not be quite certain, as it seemed to contain no urine. He was of the opinion that before night urine would come out through the perineal wound. In case no urine was found to escape, however, there would probably be retention again, and then the distended condition of the bladder would enable him to find and cut into it readily. It was reasonable to suppose that in this case the bladder would be much contracted; yet at the time the aspiration was made a pint and a half of urine was drawn off. At a second operation Dr. Gouley said he would probably make a new urethra for the patient, if possible; though it was a very unusual and complicated case, and he would have to be guided by circumstances in its future management.

It is said that the number of insane committed to the city asylums has steadily increased during the present year, sometimes as many as thirty patients being received in a single week; and this increase in insanity is attributed at the Department of Charities and Correction to the want of work, and consequent suffering, so long prevalent among the poorer classes.

The New York Foundling Asylum has just celebrated its seventh anniversary, and the annual report, read at that time, shows that since the opening of the institution in 1869, 7743 infants have been received. A large number of the foundlings are taken care of by mothers living in the building, who, in addition, nurse their own children; but a great many are also boarded out through the city, and during the year just ended $118,000 was paid for the care of the latter. A farm and home has been started in Westchester County, under the care of the same Sisters who have charge of the New York house, where it is proposed to train the children to useful avocations as soon as they arrive at a suitable age.

Many of our physicians were among the guests invited to a private view of the extensive aquarium which has been opened in this city during the past week. It comprises a very admirable collection of a vast variety of fish from all parts of the world, and affords a chance to those interested in ichthyology to study them in their native state, at the same time that it offers rational and innocent entertainment to the general public, who may not care especially for its scientific advantages. The object which attracts the most attention in the exhibition is a white whale, fourteen feet long, and weighing 1200 pounds. It was captured in the Gulf of St. Lawrence in July last, but arrived in New York only the day before the aquarium was opened.

Two young ladies recently died at Connecticut Farms, near Elizabeth, New Jersey, from eating toadstools in mistake for mushrooms; and a third one, who also partook of the poisonous fungi, barely escaped with her life. Though the distinctions between the two species are so marked that it seems hardly likely that any one should mistake one for the other, it is certainly the safer way to leave the collection of mushrooms for cooking purposes to those thoroughly skilled in this respect by long practice. PERTINAX.

PROCEEDINGS OF SOCIETIES.

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

Reported by F. WOODBURY, M.D.

THE PRESIDENT, DR. GOODELL, in the chair.

AT a conversational meeting, held January 12, 1876, a paper was read by Dr. HORACE Y. EVANS, entitled "The Variations of the Pulse,"* which received a vote of thanks. In opening the discussion upon the subject,

* See page 28.

Dr. GEORGE HAMILTON said, "Some authors have referred to a sudden fall in the frequency of the pulse, amounting to 30–35 beats to the minute, sometimes seen in typhoid fever, without being associated with any perceptible corresponding change in the general or local condition of the patient. In other instances the pulse becomes so frequent that it is difficult to count with accuracy, and yet no other alarming symptom may exist, and this, too, in affections that cannot be called nervous. In convalescence from typhoid fever, when the patient's appetite is good and the strength is daily increasing, the pulse may remain quite rapid, and it is by no means always possible to refer this to protracted subacute inflammation of the glands of Peyer, as some writers have taught. A slow pulse, devoid of tension, or, if more frequent, soft, small, and of feeble action, is often more to be dreaded than where arterial excitement is present. The former is the characteristic pulse of passive congestion; a condition that is generally united with great loss of nerve-power, caused by the violence of the primary morbific agent. This form of disease was manifest during the cholera of 1832, and found, perhaps, its more prominent illustration on some of the plantations of Louisiana, where many of the negroes died without vomiting or purging, yet, evidently, from the same epidemic influence to which their companions succumbed in the usual form of this disease.

"The same condition occurs in malignant intermittent, in congestive chill, at times in typhoid pneumonia, and in typhoid fever; the patient in the last-named affection dying, perhaps, within the first week, whilst the more usual fatal period is in from three and a half to four and a half weeks. Many of the devastating epidemics of the Middle Ages owed their fearfully sudden mortality to passive congestion, in the production of which the morbid agencies seem to have acted primarily upon the brain and spinal marrow, or, if secondarily, involved these organs and their direct connections with great rapidity, and thus venous congestion, in place of arterial reaction, was established, with its usual sequence,—a great and sudden fatality."

Dr. EVANS had noticed a peculiar paroxysmal movement in the radial artery, Stokes being the only writer whom he had found to make mention of it.

It consisted in a longitudinal motion of the artery, independent of, and not synchronous with, the impulse of the heart. He had seen it in two cases of angina pectoris, both of which terminated fatally.

In regard to Dr. HAMILTON'S remark about early death in zymotic diseases being attributable to congestion, he had noticed in the congestive chills of the Southwest that the blood was notably depurated, but thought that the congestion was not due primarily to the heart or vessels, but to the profound effect on the nervous system of the septic agent. The congested and paralyzed lung refused to deliver the blood to the heart; and he had noticed the heart fairly quivering in its efforts to keep up the circulation.

Dr JOHN G. STETLER considered the tongue, in many cases, a better index of the patient's condition, and a safer guide for rational treatment, than the pulse, which is, confessedly, under the control of the emotions, and apt to mislead the physician by exhibiting conditions due either to these or to local causes, such as organic diseases of the heart or arteries, and not to the disease about to be treated.

There are few points concerning which physicians differ as much as they do in regard to the frequency of the pulse in a normal or physiological state. This remark also applies not unfrequently to pathological conditions. Thus, whilst the pulse is generally increased in debility and depression, occasionally it is slower than normal in these conditions. Taking into consideration, then, the varying conditions of the heart and arteries, the amount and constitution of the blood, it may be affirmed that we cannot rely upon the report of the pulse as an index of the general condition of the system and as the indication for a proper line of treatment. The tongue, on the contrary, seems to have been designed as an index to the eye to exhibit the general state of the system, local causes excepted. The size, color, temperature, condition of moisture or dryness, mode of protrusion, the fur and manner in which this is shed, "serve as one of the surest guides to a correct judgment in relation to the degree, progress, and present stage of the disease, and afford the most valuable and reliable therapeutic indications."

There are certain conditions of the tongue concerning which there are scarcely two opinions as to the indications of treatment. It is doubtful whether as much can be affirmed of *any* condition of the pulse.

Dr. HAMILTON said he could not consider the appearance of the tongue as of equal value with the pulse, either as regards the prognosis, or as furnishing indications for the treatment, of disease. The blood has been well called the "life; the heart is the fountain-head from which the vital current is distributed to every part of the organism," and in order to accomplish this work it is in close relation with the brain and its extended appendages, so that these two organs are in an especial manner the centres of vitality. In this point of view, then, it is not difficult to see how important and extensive is the rôle assigned to the heart in maintaining the functions of the animal economy. The pulse may, therefore, justly be viewed as of paramount importance in the study of disease, and to a just consideration of its varying conditions are we more indebted, as a general proposition, for our knowledge of that which promises life or threatens death, and of the means to be em-

ployed for preserving the former and averting the latter, than to any other element of the human organism.

Dr. WM. B. ATKINSON said, "I was called recently to a case of miscarriage, or abortion, probably caused by the fatigue or physical discomfort of a long journey. The baby was born dead before I arrived, and, after removing the secundines and making the mother comfortable, I sat down to converse with the patient. Placing my finger on the pulse, perhaps not accidentally, but more as a matter of form or custom than with the anticipation of anything wrong, I was struck with its feebleness and want of impulsive force, though it was not much, if at all, accelerated. Without losing time in first making the physical examination, I at once gave brandy and ergot in decided doses, and then proceeded to turn out the clots from the vagina and treat actively the supposed concealed hemorrhage. To my surprise, digital exploration revealed nothing abnormal. Everything was going on excellently well. The patient afterwards told me that her physician at home had informed her that there was some peculiarity of her pulse. Her radial artery now beats about sixty times in the minute, and is quite feeble, almost thready, sufficiently so to alarm any one who should observe it for the first time without premonition. As another variety of alteration in pulse, I may mention the case of a personal friend, who suffered, some time ago, from a congestive chill, and ever since, although his health is apparently good, with the exception of dyspepsia, he has had a pulse that loses, on an average, one beat out of four, and his circulation is so defective that his hands and feet are constantly cold. Even on a warm day in the middle of summer this unpleasant symptom annoys him."

Dr. CHAS. K. MILLS said that he would like to hear some remarks on the correlation of the pulse and the temperature, to ascertain whether or not there is any absolute connection.

Dr. C. R. PRALL wished to ask Dr. Atkinson how it was that the slow pulse of his patient indicated flooding. In his experience, he had always found a frequent and feeble pulse in cases of hemorrhage.

In reference to Dr. Mills's question, he would say that the temperature bears a striking and constant relation to the pulse and respiration. In almost every case of disease, when the pulsations and respirations increase in frequency, there is a corresponding elevation of temperature; and so in the decline of a disease, when the pulsations and respirations become less frequent, the temperature is proportionately reduced. But a degree of temperature which accompanies a fixed rate of pulse and respiration in one individual will not always accompany the same rate of pulse and breathing in another. The pulse may be 120 and the breathing 30 in a minute, with a temperature of 104°, in one person, and the same rate of pulse and breathing in another person may have a temperature of 101°. So the correlation of the three symptoms is confined, generally, to those symptoms as they are found in each individual case.

Dr. EVANS said, in reference to Dr. Atkinson's case, it was important to discriminate between the *rapid* and the *quick* pulse. It is perfectly possible to have at the same time a slow pulse as to rate and yet quick in its impulse, and the reverse, rapid in rate but tardy or prolonged in impulse.

As to the relative value of the tongue and pulse as indicators of the condition in disease, where the tongue is used once as a guide, the pulse is depended upon a hundred times.

If the pulse, from central organic disease, mislead the observer, it is his own fault. Any abnormality of the pulse should lead him to interrogate the heart by auscultation. The temperature and pulse generally rise and fall together, except where organs like the lungs are invaded. As a rule, it may be stated that a temperature of 105°, if sustained longer than twenty-four consecutive hours, is incompatible with life, owing to the rapidity of tissue-change. In sthenic cases, the elevated temperature is due to the increased activity of the circulation.

If the pulse remains excessively rapid while the temperature falls, it is often premonitory of dissolution.

Dr. WOODBURY questioned the statement that a temperature of 105°, on the surface of the body, was incompatible with recovery, if it continued more than twenty-four hours. In his personal experience as a resident in Pennsylvania Hospital, he had seen this exceeded. He knew of a patient, a case of cerebral rheumatism, that maintained a temperature of 108° for several days, and subsequently recovered; and Dr. Da Costa, in a recent article, reported a recovery in the same disease after a temperature of 110° in the axilla.

Dr. ATKINSON.—The thermometer has been referred to several times this evening, but no mention has been made of an instrument of recent introduction—the thermoscope—which promises to be of equal service, and, on account of its simplicity and cheapness, of more general application. The inventor, Dr. Seguin, of New York, sent me one some time ago, and I believe that mine is the only one used in this city, although quite a number have been sold in New York. It indicates, instead of degrees of heat, the variations in a patient's temperature from day to day, which is, after all, the point of practical importance. To revert to Dr. Prall's question, I would say that I never was of the opinion that a slow pulse indicated hemorrhage, but it was the other characters of the pulse of my patient that pointed to exhaustion and collapse that led me to believe that she was the victim of the most prominent and active danger of the

parturient woman, the possibility of which haunts the mind of every intelligent practitioner during his attendance at the lying-in chamber. The question having already been answered by the appropriate remarks of Dr. Evans, I need not answer it more in detail.

Dr. S. D. RISLEY mentioned a curious case in connection with the subject. He had attended a man, a hard drinker, who had an attack of excessive weakness, without any active sign of physical illness. He was not sick enough to be in bed, and there were no symptoms pointing to brain or spinal disease. He had no obvious liver- or kidney-trouble, but his pulse remained in the neighborhood of 40 beats per minute for two or three weeks. This was thought to be idiosyncrasy, and the patient was lost sight of after regaining his strength sufficiently to enable him to pursue his business. Some months later, accidentally meeting him, and taking the opportunity to examine the pulse again, it was found to beat 72 to the minute.

Dr. WOODBURY inquired whether the patient just spoken of had suffered from intermittent fever, or lived in a malarial region. A curious fact in connection with poisoning by malaria is that after an attack of intermittent fever the pulse, without any other assignable cause, will sometimes become quite slow and full, simulating the pulse of cerebral disease, and quite likely to alarm one who is not on his guard. This fact the speaker mentioned on the authority of Dr. J. F. Meigs, who frequently refers to it in his clinical lectures.

Dr. S. D. RISLEY answered that he was not aware of any malaria in the case. He recalled another case in contrast, where the patient, applying for life insurance, although all his answers were perfectly satisfactory, had a pulse of 125, which, after a short rest and conversation on general topics, came down to 80. There was no disease of the central organ of the circulation.

Dr. GEORGE E. STUBBS thought the pulse a most important agent, taken in conjunction with accessory symptoms, in furnishing evidence of the general state of the patient. The thermometry of disease, and the law governing the relation of pulse and temperature, could not be ascertained by reference to isolated cases, but required patient, careful, and systematic observation of a large series in order to yield reliable data. This has been done to a large extent by the Germans, more particularly Wunderlich and Liebermeister. As an examiner for life insurance, with an experience extending through a number of years, he had noticed that where longevity is a family trait, the pulse in the healthy adult risk under fifty years is about 72, and, where no family history could be obtained, had always regarded such a pulse as a favorable sign, and its possessor as an excellent risk to recommend to the company.

Dr. BENJAMIN LEE desired to thank the gentleman, who had just taken his seat, for announcing the conclusion to which he had come in regard to the pulse-rate which indicated longevity when under the fingers of a life-insurance examiner. He knew of no conditions under which a man could be placed more likely to excite the pulse and increase its frequency. His own pulse was an exceptionally slow or infrequent one. When in a state of complete rest, it averaged about 50; and when he was in need of food, it often fell below 45. On applying for examination, some years since, with a view of taking out a policy, he took the precaution to mention this idiosyncrasy, fearing that it might mislead the examiner, and was somewhat surprised to be informed that his pulse at that moment was 72. The fact of the gentleman having determined that as the rate most propitious to length of days was, therefore, a very comforting one to him. Personally, he would like, however, to have the opinion of the lecturer as to the significance of an *abnormally* unfrequent pulse in health.

Dr. EVANS stated that not more than one in a hundred *healthy* individuals of middle life will have a pulse much under 75. Where this does occur, it is a congenital peculiarity, and is an exception. He once examined an old gentleman whose heart intermitted two beats in every ten, without any evidence, apart from this, of disease.

Dr. LEE said that he could hope to add little in the way of experience to what had been said in regard to the pulse in acute disease. He had of late years seen so little of such disease that he had not kept pace with the science of the day in the matter of the delicate correlation between the pulse, the temperature, and the respiration. In regard to the question of the evening, the relative value of the indications afforded by the tongue and the pulse, he found himself quite unable to agree with his friend Dr. Stetler in assigning the pre-eminence to the former.

In chronic surgical affections, where operation became necessary, he was always accustomed to rely almost entirely, on the day following such operation, on the state of the pulse for both prognosis and treatment. If it was not materially increased in frequency, soft and quiet, he held that the chances were extremely good; but if it was accelerated and irritable, he at once dreaded septicæmia, and made his preparations accordingly. He never thought of consulting the tongue for information in such cases. There was, perhaps, this difference, however, between the revelations of these two important factors in forming an opinion. The pulse tells us, from day to day, what the changes are in our patient's condition. We depend not so much on its report at any one time as on the comparison of that report with that given in a previous visit. It is to us a gauge of the varying force of disease or of vitality. But the tongue, in certain

marked conditions especially, showed the state of the system just at the time of the observation, and indicated the preferable course of treatment. A dry, brown, fissured tongue in acute disease had but one signification, and presented always the same indications.

BIOLOGICAL AND MICROSCOPICAL SECTION OF THE ACADEMY OF NATURAL SCIENCES.

SEPTEMBER 11, 1876.

Vice-Director, JAS. TYSON, M.D., in the Chair.

ON motion, Prof. T. G. WORMLEY, of Columbus, Ohio, being present, was invited to exhibit his improved double slides, displaying two kinds of blood-corpuscles, human and dog, also human and cat, in the same field.

Prof. WORMLEY placed a preparation of human and dog's blood beneath one of the microscopes, and stated that it was prepared by his assistant, Dr. C. L. Mees, by spreading a thin film of human blood upon the slide, according to Prof. Christopher Johnson's method (with the edge of a strip of glass), and then scraping off part, say the right-hand half of the film, with a sharp knife, leaving a vertical row of good fields near the centre of the slide. A thin glass cover, similarly prepared with dog's blood, was then inverted on the slide, and so arranged under the microscope as to bring the sharp boundary line on the (actual) left of the human blood in exact contact with the like well-defined edge on the right of the group of dog's blood-corpuscles, and cemented in that position.

Dr. RICHARDSON remarked that he first contrived a plan for thus demonstrating the contrast in size between the corpuscles of human and certain animal bloods in January, 1874, his method being to spread with narrow strips of metal or glass two streaks of blood intersecting each other at a very acute angle, near which point would be found (in successful preparations) fields displaying red disks of the two different kinds in close juxtaposition. The one disadvantage of Prof. Wormley's slides seemed to him to lie in the fact that, when photographed, they gave the appearance of having been made from a patched-up negative or double print, and would therefore be less convincing to a jury if used in a criminal trial.

Dr. JAMES TYSON thought there was not much force in Dr. Richardson's objection, and, indeed, had often thought there was scarcely any use in taking a microscope into court, as anything shown with it could add but little to the reliability of the evidence.

Dr. WORMLEY observed that his preparations were intended for illustration chiefly, and that, in his experience, courts had very properly, in general, ruled out evidence by the microscope, holding that the reliability of the expert himself must be the support of his testimony.

Dr. SEILER inquired what practical use these double slides could be put to, if they were not to be exhibited in court to demonstrate to jurors the difference between the two kinds of blood upon which the question in any particular case might turn.

Dr. TYSON replied that it might be quite proper to use as evidence photographs, which every one could comprehend, but improper to employ a microscope, which no one could understand unless he were specially educated.

Dr. SEILER suggested that, in that case, Dr. Richardson's objection would hold good.

Dr. RICHARDSON remarked that he did not intend to make objection to Prof. Wormley's very ingenious method, which he considered a decided improvement over his own in most respects. He would like, however, to ask Prof. Wormley whether he had ever seen slides prepared in this way before he showed them to him at his office in Philadelphia during January last.

Dr. WORMLEY replied that he had not, but did not think that the mere arranging of two varieties of corpuscles close together upon the same slide, as had often been done with diatoms previously, was of much importance.

Dr. RICHARDSON suggested that, although needles had been used from time immemorial, Howe was generally allowed some credit for originality in contriving the sewing-machine, just as Watt was for the steam-engine.

Dr. WORMLEY did not consider the idea under discussion was comparable to these examples.

Dr. RICHARDSON said he did not intend to apply for any patent, but nevertheless claimed for the idea, as furnishing a mode of convincing demonstration, a small yet definite value, which remained with the originator in spite of minor changes in the method of putting it into practice.

After inspecting Dr. Wormley's beautiful specimen of human and dog's blood in the same field, Drs. Ruschenberger, Tyson, Seiler, Pierce, Ludlow, Buckingham, Schaeffer, and Richardson all agreed that the corpuscles upon the left side of the field (human blood) were on an average decidedly larger than those upon the right side (dog's blood). Dr. Kenderdine, however, declared that the corpuscles were equally large on the left and on the right.

Dr. SEILER asked Dr. Wormley whether he had noticed any difference in various kinds of blood as to their action upon light, making this inquiry because he had observed that human blood-corpuscles differed slightly from those of other mammals in appearance.

Prof. WORMLEY replied that there was a peculiar physiognomy, character, or outline of the corpuscles in human blood, which cannot be expressed in words, and yet may very generally be recognized by an observer familiar with the study of the circulating fluid.

Dr. SEILER suggested that this peculiarity consisted partly in the fact that the corpuscles of the dog, ox, cat, etc., were more lenticular than those of man.

Dr. TYSON remarked that this peculiar physiognomy of the human blood-disks spoken of by Prof. Wormley was evidently the "cachet" of the corpuscles alluded to by Prof. Christopher Johnson in his paper on the "Microscopy of the Blood," discussed before the Section on Biology of the International Medical Congress.

Dr. RUSCHENBERGER stated that by the word "cachet" was meant the trade-mark, or rather the *stamp of individuality*, of the corpuscles in question.

Prof. WORMLEY then exhibited another double slide, of human and cat's blood, in which the contrast was very obvious, and Dr. Kenderdine remarked that it was sufficient to hang a man if a decision turned upon the difference.

Dr. TYSON inquired of Prof. Wormley whether this strong contrast, which was so evident in the specimen beneath the microscope, could be demonstrated with equal clearness in corpuscles from blood-stains which had been dried and moistened again.

Prof. WORMLEY replied that, by the use of suitable menstrua, the corpuscles could be re-obtained from blood-stains with little or no alteration of their magnitude.

Dr. J. G. RICHARDSON fully confirmed this statement from his own observations in an immense number of experiments.

Prof. WORMLEY mentioned that he intended very soon to publish his method of investigation, together with the results of an extended series of observations.

Dr. RICHARDSON remarked that his statement published seven years since having been to some extent misunderstood, he would just say, while the subject was under discussion here, that he had never claimed to be able to distinguish the corpuscles of human blood absolutely, but only to make a diagnosis between ox, pig, or sheep's blood and the blood of man, when the query was narrowed down to this question, so as to disprove in a criminal case the false statement of a guilty prisoner. Perhaps he could best illustrate the exact point at issue by repeating his observation to Prof. C. Johnson, of Baltimore, in the late International Medical Congress, when that gentleman mentioned that he found it impossible to discriminate human from dog or guinea-pig's blood in some specimens submitted to him by Dr. J. J. Woodward, to wit: "This is precisely what I should expect; but I wish to ask Prof. Johnson whether, if Ananias (by way of complete antithesis), instead of Dr. Woodward, should submit to him an unlabelled slide of blood, declaring that it was that of sheep, yet on which the corpuscles were found to average $\frac{1}{3200}$ of an inch in diameter, could he not say without hesitation, 'Ananias, you lie'?"

Dr. KENDERDINE suggested that such a reply would be induced by the well-known character of Ananias for untruthfulness, but he would ask Dr. Richardson what could be said if he (Dr. Kenderdine) brought forward a similar slide and statement in regard to it.

Dr. RICHARDSON answered that would not make the least difference, because, if he should advance such a misstatement (of course an impossible thing for Dr. Kenderdine to do), the inevitable conclusion would be that he had become a disciple of Ananias.

Prof. WORMLEY inquired whether Dr. Richardson would decline to attempt the diagnosis of human blood from that of animals whose corpuscles approximate more nearly to it in size than do those of the ox or pig; and if so, why he had adopted these magnitudes as limits beyond which discrimination was impossible.

Dr. RICHARDSON replied that, in his paper published in the *London Microscopical Journal* for May, 1875, he had explicitly stated that, when the life of a fellow-being was at stake, he believed stains of human blood could not be distinguished with absolute certainty from those of blood from any animal whose corpuscles averaged more than $\frac{1}{4000}$ of an inch in diameter. He admitted that this limit was an arbitrary one, and that in suggesting it he had perhaps been unnecessarily cautious, but believed that, if erroneous, the error was on the side of safety.

Dr. TYSON could understand that such discrimination might be made in carefully preserved spots on glass or highly-glazed paper, but thought stains upon cotton or woollen fabrics, where the fluid portions of blood were rapidly absorbed, would present much greater difficulties, especially after being freely exposed to the atmosphere for long periods of time.

Prof. WORMLEY stated that he had measured a series of seven human blood-corpuscles, the same referred to in Dr. Richardson's paper of July, 1874, at intervals during the space of three years, and was satisfied no variation in size had occurred.

Dr. RICHARDSON said he had made numerous investigations upon blood-stains on muslin, linen, and cloth, after at least a year's exposure, with entire success, and inquired of Prof. Wormley whether he had ever detected any difference in the size of blood-corpuscles soaked out from stains on linen, wood, etc., and those from spots upon paper or glass.

Prof. WORMLEY replied that he had not found any variations in corpuscles from blood-stains dried on a great variety of objects and kinds of fabrics. He then exhibited another slide, displaying circular bodies about $\frac{1}{3400}$ of an inch in diameter, and strongly resembling human blood-corpuscles partly acted on by water. They were, however, quickly pronounced by Dr. Seiler fungous spores, and Dr. Kenderdine remarked that they resembled to some extent the spores of Ustilago.

REVIEWS AND BOOK NOTICES.

ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. VOL. XI. DISEASES OF THE PERIPHERAL CEREBRO-SPINAL NERVES. By WILHELM HEINRICH ERB. Translated by Mr. HENRY POWER, of London. Wm. Wood & Co., New York.

Of all medical books that adorn our library-shelves this is among the most satisfactory. Thorough, clear, the work of one learned in the learning of the schools and also in the learning of the laboratory and clinic-room, it not merely reflects the science of the day but carries it beyond that of yesterday. It is perhaps too full and elaborate for the average practitioner, but for that very reason is of the more value to the student. The practical part might be condensed, in these days of compends, into a moderate volume for the professional mass, and no doubt would be swallowed more readily; but Dr. Erb, true to his German instincts, has made a volume of over 600 pages, which is soul-satisfying to the man who wants to know all that is to be known upon the subject. In the pathological portions we wish it had been put into the heart of the publisher to lighten the task of the reader with a few diagrams; but we suppose we ought to be thankful for the enterprise that has spared us the labor of wrestling with the polysyllabic gutturals that arise from amid the smoke and beer-fumes of the German workshop. For solid ponderosity, as well as for original research and thoroughness, all honor to the conquerors of Sadowa! And surely in the peaceful rivalry of science Professor Erb has well carried forward his country's standard.

CHEMISTRY, GENERAL, MEDICAL, AND PHARMACEUTICAL. By JOHN ATTFIELD, Ph.D., etc. Seventh Edition. Philadelphia, 1876. H. C. Lea.

A book which has passed through six editions in nine years needs from journalists only such announcements as are necessary to keep the profession aware of the continued interest of the author in his progeny. We therefore are content with the commendation that the book before us is brought abreast of the times.

COMPENDIUM OF HISTOLOGY. Twenty-four Lectures by HEINRICH FREY. Translated by GEO. R. CUTTER, M.D. New York, G. P. Putnam's Sons.

This large octavo of 275 pages is an attempt to present briefly and clearly all established facts of histology, and at the same time to point out, with equal clearness, the limits of our histological knowledge. The name of Professor Frey is a guarantee of the accuracy of the work, and we have been delighted with its simplicity and pellucidness. It is to our thinking not only what the student wants, but also what is wanted by the practitioner who desires to be *au courant* with the science, but who does not work much with the microscope and has not time for the minuteness of detail and for the multiplicity of polemics which magnify the text-books into volumes. As a specimen of the publisher's art the book is all that could be desired. The two hundred and eight woodcuts are beautifully clear and distinct.

GLEANINGS FROM EXCHANGES.

PAPILLOMA OF THE BLADDER WITH PROTRACTED HÆMATURIA (*The British Medical Journal*, September 30, 1876).—At a recent meeting of the Pathological Society of Dublin, Dr. A. W. Foot exhibited a specimen of villous tumor or papilloma of the bladder, from the body of a man, aged sixty-five. It occupied the usual, according to Rindfleisch the invariable, situation of such tumors, the *trigonum vesicæ*, springing from a base of irregular outline about two inches broad by two inches and a half long. It had involved and occluded the orifice of the right ureter, which was impervious to the finest probe; this ureter was so dilated as to equal in breadth parts of the contracted colon in the same subject. The right kidney was expanded with retention cysts, and its parenchyma was much atrophied by the pressure of its distended pelvis, infundibula, and calyces. The capacity of the bladder was increased; its mucous membrane, of a pale cream color, was more or less bathed in pus from recent cystitis. Viewed under water, the papilloma exhibited a pale, soft, shaggy structure, protruding about half an inch from the mucous surface. The patient had suffered for many years from internal hemorrhoids, which frequently bled, often for a fortnight at a time. Three years before his death, the piles ceased bleeding; and hæmaturia came on, and continued, with the exception of an interval of two months, to within a week of his death. He came into the hospital a month before his death, because of painful and frequent micturition, which had not previously attended the hæmaturia. The urine was as dark as porter, and showed hosts of blood-corpuscles. There was neither œdema, dyspeptic symptoms, nor lumbar pain; no evidence of renal or vesical calculus, of purpura, or of enlarged prostate. The diagnosis was considered to lie between villous tumor and hæmaturia vicarious to the habitual discharge from the hemorrhoidal veins. Much difficulty ensued from the coagulation of the blood in the bladder after the use of styptic and astringent medicines. Neither washing the bladder with a large double catheter, nor the use of the aspirator-catheter, nor oval suction of the catheter removed sufficient clot to relieve the urgent symptoms. Dr. Foot attempted the digestion of the blood-fibrin by injecting the bladder with a solution of pepsin, 20 gr., dilute hydrochloric acid, ʒij, tincture of opium,

3j, warm water, 4 oz. This, though it occasioned much smarting, was followed soon by the easy passage of much softened coagula. Cystitis resulted probably from the amount of instrumental interference; and the urine, retaining its porter color, became alkaline, ropy, and fetid. These symptoms subsided under the use of salicylic and benzoic acids, and the urine regained its usual odor and acidity, lost its hemorrhagic character, but exhibited a deposit of pus-cells. The piles at once again began to protrude and bleed, forming large, irreducible, œdematous tumors, which were relieved by leeching and puncture. While the patient was hopeful of his restoration to health, rigors and vomiting suddenly occurred, followed by rise in pulse, temperature, and respiration, and soon afterwards by an apathetic and drowsy state, and he sank in fifty hours after the appearance of this febrile movement.

Fetid Feet.—A very obstinate case of this complaint, in a workman, is reported in the *Bull. de Thér.* by Dr. Ortega. In the manufactory in which he worked he was avoided by his fellow-workmen, and when he entered a room the window would be opened. He had consulted several physicians, but without success. The epidermis of the sole of the foot was white and macerated, and there were little ulcerations at the clefts of the toes and around the nails. M. Ortega advised him to apply compresses soaked with a solution of chloral, which had the effect of rapidly destroying the smell and curing the ulcerations.

Two Cases of Compound Fracture of the Leg (*The British Medical Journal*, September 30, 1876).—In the University College Hospital two cases of compound fracture of the leg were treated in the same ward and at the same time by Mr. Christopher Heath, one on the antiseptic plan, the other by the open method. In the first case the wound was a small one, and was treated antiseptically from the first with very good results. In the second and older patient the fracture became compound, as the result of a fit of delirium tremens, and the bones became so displaced that Mr. Heath found it necessary to remove a portion of the tibia with the saw in order to effect reduction. This patient made a good recovery, with a wound dressed with oakum, so as to absorb all discharges, and was sent out with the fractures firmly united. The daily temperature was carefully taken in both cases; and it is remarkable that, notwithstanding the greater severity of the injury in the second case and the open condition of the wound, the temperature was on the average no higher than that of the antiseptic case.

Syphilitic Phthisis (*The Boston Medical and Surgical Journal*, October 12, 1876).—Fournier, in an elaborate lecture on the pathology and clinical features of syphilitic phthisis, recognizes only two forms of syphilitic lesions, (1) simple hyperplasia and (2) gummata, and says that the diagnosis of this disease is very difficult. There is a remarkable tolerance of the lesions by the system, even when they are extensive, the patient retaining his flesh and strength to a considerable degree. When this is the case, syphilis should be suspected. M. Fournier admits that this tolerance of the system is seen also in scrofulous phthisis, and therefore cannot be depended on for diagnosis; but he advocates in all doubtful cases the application of specific treatment, which will soon settle the question. The treatment recommended consists of large doses of iodide of potassium (two to six grammes daily), and small quantities of mercury by inunction, fly-blisters, cupping, and iodine locally, cod-liver oil, bark, etc. M. Fournier ends with the following axioms: (1) Tertiary syphilis can produce in the lungs lesions which either locally, or by reacting on the general health, simulate pulmonary phthisis. (2) These pulmonary lesions of syphilis are often amenable to specific treatment. However grave and important they may appear, they are far from being always beyond the resources of art. (3) Consequently, when a case of pulmonary lesion presents itself, it is important, unless the existence of tuberculosis be quite certain, to ascertain if the lesion can be traced to syphilis. It is necessary always to bear in mind that syphilis is a possible cause of pulmonary lesions. (4) When syphilis can be suspected to be the cause, the primary indication is to prescribe specific treatment, which in similar cases has been sometimes followed by the happiest results.

Reduction of Strangulated Hernia (*Nashville Journal of Medicine and Surgery*, September, 1876).—Dr. B. H. Washington says that for many years he has employed a painless, easy, and quick plan of reducing strangulated hernia, which he considers far superior to the ordinary tedious, painful, and sometimes dangerous taxis. This plan consists in applying a dry cup to the abdominal wall, say over the umbilicus; then let an assistant stand between the legs of the patient and lift the hips as high as he can; then the operator, drawing on the dry cup, produces a vacuum, and, atmospheric pressure being superadded to the weight of the intestines gravitating towards the chest, a reduction is easily effected in less than a minute.

The operation is almost painless, and really seems so to the patient, for the relief from the preceding pain is so great that he never says a word about any suffering from the operation.

Dr. Washington adds that the Russian peasantry reduce hernia by dry-cupping on a grand scale: they take a small cooking-pot, and make the bottom as hot as they can without making the rim too hot, and then, applying it over the abdomen, cool the bottom with cold wet cloths, and thus suck up such a large portion of the intestines that they are

able to make traction enough on the intestine to draw it back again into the abdominal cavity, though the patient has not the hips elevated.

THE TRANSMISSION OF SYPHILIS (*Archives of Clinical Surgery*, September, 1876).—Dr. R. W. Taylor, who is an able and intelligent upholder of Kassowitz's theory of the transmission of syphilis,—who believes, that is, in the possibility of the disease being transmitted to the child from a syphilitic father without contamination of the mother,—has added an important contribution to the study of this question. He gives two cases, studied with great care and observed for many years. Presented in brief, the facts of the first case are these. A man, with early syphilis, impregnates a healthy woman; she, showing no evidence of the disease, brings to the world, first, a dead child, probably syphilitic, then five undoubtedly syphilitic children. During this period the syphilis of the father is in an evidently active condition. When under treatment he is seemingly free from the disease. His wife in this time bears a child which is free from syphilis, and remains so. This disease being influenced by treatment, it again develops itself, the power of contagion returning; and then the wife, becoming pregnant, has another intensely syphilitic child. Being again treated, and apparently cured, he again impregnates his wife, and she then bears a healthy child, which within a year shows no evidence of syphilis. The vital point in this case is whether the woman was syphilitic or not. To prove this point Dr. Taylor examined her minutely and repeatedly many times, but failed to elicit one suspicious fact or symptom. He thereupon asks the question whether, in the light of our knowledge of hereditary syphilis, we should have truth and reason on our side if we admitted that so active a condition of syphilis as was observed in these children could arise from a mother in whom no evidence of even the slightest syphilis could be discovered during so many years.

The next case was almost precisely similar,—the woman being unquestionably healthy; numerous children being born, sound during the time when the father was under treatment and before he contracted the disease; syphilitic when he neglected his condition and the diathesis resumed its activity.

The cases are very carefully reported; in one instance the observations of the mother were confirmed by another prominent physician, and altogether the paper forms an interesting and valuable addition to our knowledge of this needlessly obscure subject.

CHYLOUS ASCITES PRODUCED BY PARASITES (HÆMATOZOA) (*The Medical Record*, October 14, 1876).—Dr. F. Winkel reports the case of a woman, thirty-nine years of age, who had lived long in Surinam, and who, one year after her return to Germany, became affected with ascites, which at first was improved by medical treatment, but later on required paracentesis. About two quarts of a fluid resembling buttermilk were drawn off, in which the microscope revealed the presence of a large number of thread-like, actively moving organisms, $\frac{1}{125}$ inch in length by $\frac{1}{2500}$ inch in breadth. They had a rounded head with four or five cilia, and a sharp-pointed tail. The patient improved somewhat after the operation, but died soon after without having been seen again by Dr. Winkel. The urine appeared to be normal. Menstruation was regular, although the patient suffered from a prolapse of the bladder and womb consequent on the ascites. After the paracentesis a tense, painful swelling of the left leg, and especially of the veins, set in, and lasted for a long time.

Winkel points out the similarity between these entozoa and the filaria discovered by Lewis in chyluria, and thinks that in this case the filaria made their way from the intestinal canal into the lymphatic vessels, and thence into the peritoneal sac. They were probably present in the blood also, and perhaps excited the thrombosis of the veins. The patient stated that a similar affection was not unfrequently met with in Surinam.

MISCELLANY.

THE following decision of the Supreme Judicial Court, rendered October 2, is of interest to the profession. On November 4, 1871, the Mutual Life Insurance Company of New York issued a policy of insurance for $1000 on the life of Flora A. Hatch. The woman died by reason of a miscarriage produced by an illegal operation performed upon her. The company refused to pay the money, and the case was carried to the Superior Court, whence it went to the Supreme Court, which has just given the following decision:

The voluntary act on the part of the assured, resulting in her death, was of such a character as to preclude the defendants from assuring against the consequences.—*Boston Medical and Surgical Journal.*

A PANIC AMONG SPONGE-DIVERS.—It is reported from Beyrout that the last crop of Turkey sponge was very deficient, and prices of ordinary and common sponges have greatly risen in consequence. The deficiency is attributed to a panic among the divers, caused by the appearance in the neighborhood of Batroun, Mount Lebanon, the chief sponge-fishing locality, of a sea-monster, alleged to have been equal in size to a "small boat." Its actual depredations among the divers appear to have been limited to one man, who it is said was swallowed whole.—*The Druggists' Advertiser.*

ACCORDING to the Report (*Med. Times and Gazette*) of the Court and Board of Examiners of the Royal College of Surgeons, England, for the year 1875–76, the number who have passed and have been rejected from the various medical schools during that period is as follows:

From 31 Schools, Primary Examinations. Total, 700; number passed, 443; number plucked, 257; percentage of rejections, 1 in 2.72.

From 33 Schools, Pass Examinations. Total, 498; number passed, 377; number plucked, 121; percentage of rejections, 1 in 4.11.

From Canadian Schools, Primary Examinations. Percentage of rejections, 1 in 11.50.

From Canadian Schools, Pass Examinations. Percentage of rejections, 1 in 3.27.

DURING the last winter semester the medical students at the German universities were distributed as follows: At Vienna, 830; Würzburg, 548; Leipsic, 428; Dorpat, 353; Munich, 347; Berlin, 263; Greifswald, 218; Gräz, 211; Zürich, 197; Strasburg, 191; Erlangen, 161; Breslau, 160; Tübingen, 157; Bern, 151; Königsberg, 148; Bonn, 123; Göttingen, 123; Marburg, 122; Freiburg, 120; Halle, 112; Heidelberg, 87; Giessen, 84; Basle, 82; Jena, 75; Innsbruck, 69; Kiel, 64; Rostock, 36.—*Boston Med. and Surg. Journ.*

DOG'S MILK IN RICKETS.—M. Bernard, in the *Gazette Hebdomadaire*, states that among the women of Monttrun, in Dauphiné, it is the custom to continue suckling for two years and a half to three years, with the idea of preventing another pregnancy; and if the child dies, the mother either adopts another, or takes a puppy into her family to carry on the process. All these puppies suffer from rickets, which resembles exactly the rickets of children, except that the deformity is never afterwards remedied. But the dogs always recovered under the influence of their own mother's milk. Induced by these facts, M. Bernard tried the dog's-milk cure on a rickety female child twenty-six months old. After two to three months of this treatment the swelling of the epiphyses and the bending of the bones had diminished, the muscles were stronger, and the child could stand and walk a little. At the end of about fourteen weeks the health of the patient was extremely good, the only remains of the deformity being a slight curve of the femur and sternum. In six other cases this treatment has also been successful; and M. Bernard recommends its general adoption in the treatment of such cases.—*The Doctor.*

VAGINAL POULTICES.—At a late meeting of the Société de Thérapeutique, Paris, M. Bucquoy related that while an *interne* of Louis he had seen true cataplasms applied to the vagina. They were made thin and rolled around a small stick, which, having served as a means of introducing them, was withdrawn. This practice, which was an excellent one, seems to have entirely fallen into neglect, M. Fournier, of the Lourcine, being the only person who now employs vaginal cataplasms. M. Fournier makes use of voluminous cataplasms which quite distend the vagina; and he states that he was first induced to resort to this practice by having observed the effects which had several times resulted from his pupils having forgotten to remove large wadding plugs that had been introduced. In each instance these, far from having acted prejudicially, had proved of service in treating vaginitis.—*The Medical Press and Circular.*

THE "GENEVA CROSS" IN TURKEY.—The "red cross" of the Geneva Convention is not appreciated among the Bashi Bazouks. Dr. Lenk, an Austrian surgeon, was captured on one of the battle-fields and brought before Assef Pacha. The latter, mistaking the red cross which the doctor hastened to display as a bold insult to the crescent, cut him down with his scimetar. Several other surgeons met the same fate, through a like misapprehension.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 8, 1876, TO OCTOBER 21, 1876, INCLUSIVE.

RANDOLPH, J. F., SURGEON.—Granted leave of absence for four months. S. O. 208, A. G. O., October 6, 1876.

MCKEE, J. C., SURGEON.—Granted leave of absence for one month and twenty days, with permission to go beyond limits of this Division. S. O. 138, Division of the Pacific and Department of California, October 2, 1876.

HARTSUFF, A., SURGEON.—Leave of absence extended for one month. S. O. 110, Military Division of the Missouri, October 6, 1876.

WOODHULL, A. A., ASSISTANT-SURGEON.—Promoted Surgeon with rank of Major, to date from October 1, 1876, vice Milhau, resigned. G. O. 103, A. G. O., October 13, 1876.

KOERPER, E. A., ASSISTANT-SURGEON.—Assigned to duty at Camp Sheridan, Nebraska. S. O. 137, Department of the Platte, October 6, 1876.

WILSON, WM. J., ASSISTANT-SURGEON.—Leave of absence extended four months, on surgeon's certificate of disability. S. O. 211, A. G. O., October 10, 1876.

AINSWORTH, F. C., ASSISTANT-SURGEON.—Assigned temporarily at Fort Vancouver, W. T. S. O. 134, Department of the Columbia, October 9, 1876.

COMEGYS, E. T., ASSISTANT-SURGEON.—To proceed to Washington, D. C., in charge of an insane soldier, and upon completion of this duty avail himself of his leave of absence. S. O. 187, Department of Texas, October 9, 1876

REED, W., ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for an extension of fifteen days. S. O. 119, Department of Arizona, September 27, 1876.

CRAMPTON, L. W., ASSISTANT-SURGEON.—Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 196, Department of the Gulf, October 13, 1876.

WOOD, M. W., ASSISTANT-SURGEON.—Assigned to duty at Camp Robinson, Nebraska. S. O. 137, c. s., Department of the Platte.

APPEL, D M., ASSISTANT-SURGEON.—Assigned to duty at Fort Stanton, New Mexico. S. O. 206, Department of the Missouri, October 4, 1876.

BURTON, H. G., ASSISTANT-SURGEON.—Assigned to duty at Camp Bowie, A. T. S. O. 122, Department of Arizona, October 4, 1876.

PHILADELPHIA, NOVEMBER 11, 1876.

ORIGINAL COMMUNICATIONS.

CASES OF MULTILOCULAR CEREBRO-SPINAL SCLEROSIS.

BY GEORGE S. GERHARD, M.D.,

Physician to the Orthopædic Hospital and Infirmary for Nervous Diseases.

CASE I.—Samuel A., æt. 57, a native of Ireland, and a blacksmith by trade, was admitted into the out-patient department of the Infirmary for Nervous Diseases on September 17, 1876, and gave the following history. His health had always been good until about seven years ago, when, after no known cause, he began to lose power in the legs. One year after this his arms grew weak, and he then observed for the first time that any movement of the upper or lower extremities was accompanied by tremor. At a somewhat later period his speech became affected. The weakness of his limbs and the trembling gradually increased, until finally about four years ago he was obliged to give up work.

On admission there is decided loss of power in the upper and lower extremities, and upon his attempting to use either, a large and jerky tremor is developed. He walks with the assistance of a cane, but his movements are slow, and his feet clear the ground with much difficulty. His grip, particularly that of the right hand, is feeble, squeezing the dynamometer with the former to 100° and with the latter to 110°. In the upper extremities the trembling is especially well shown during the performance of an act requiring some little time for its execution, such as lifting a glass of water to the mouth. The tremor also involves the muscles of the head and trunk, but it ceases entirely when the patient is in a state of absolute repose. There is no muscular wasting, no loss of electrical response, and no disturbance of sensibility.

His mental faculties are decidedly impaired, and his speech is thick and deliberate, there being a decided interval between each word. His eyesight is poor, and examination of the fundus reveals commencing atrophic changes, as shown by attenuation of the vessels and a general pallor of the optic disk; there is also slight nystagmus. The unsteadiness of gait and the tremor are not increased by closure of the eyes. His urine is in all respects normal, and he has no loss of control over the bladder or bowels.

Case II.—Elizabeth P., æt. 37, a widow, and a native of Ireland, was admitted for the second time as an out-patient on September 14, 1876.

She is a badly-nourished, meagre-looking person, but presents nothing remarkable in her previous history other than that she has had to work hard for her living and has suffered much from mental anxiety. Her present troubles began two years ago, when she observed that in walking she dragged her right foot, then her left leg grew weak, and in turn her right and left arm. Soon afterwards, trembling during voluntary movements was noticed in the arms, but not in the legs until about eight months ago. She has suffered a good deal from giddiness, and about one year ago her face was found to be drawn to the left.

On admission there is paralytic weakness of the upper and lower extremities, accompanied by tremor during voluntary movements which at times is quite violent. In walking, her back is bent forwards and the feet are dragged in such a manner as to appear as if they had weights attached to them. All changes of posture are accomplished with much difficulty and with much deliberation. The muscles are all fairly well developed and retain their normal electric reaction. After being in the recumbent posture for any length of time, she is troubled with a feeling of stiffness in the muscles of the legs, but there are no spasmodic jerkings. Sensibility is undisturbed.

Her memory is somewhat impaired, but her intellectual faculties appear to be preserved. She complains of vertigo, but is free from pain in the head. She has no speech-difficulty, and there is nothing remarkable in the appearance of her face beyond that due to the right facial palsy. Her vision is somewhat impaired, and the examination of the eye-ground which was kindly made for me by Dr. Albert G. Heyl reveals (as in Case I.) signs of commencing atrophy. There is no nystagmus, and there has never been double vision. Her urine is normal.

Case III.—Elizabeth C., æt. 49, born in Philadelphia, a widow, was admitted on March 20, 1876.

As in the preceding case, this patient presents a history of long-continued mental anxiety, incident to the nursing of her husband through a prolonged illness and to the bad health of several of her children; but she does not appear to have been laid up until the present time. About three years ago she was taken with muscular trembling, and shortly afterwards she observed that she was growing weak in the limbs; but she was not forced to give up her work—that of a seamstress—until about six months ago. She states that she has never had uterine or menstrual disorder, and that the change of life has not yet taken place.

She has now weakness of the extremities, particularly of the lower, associated with marked and oftentimes violent tremor on voluntary movement. Her muscular development is good, and there is no disturbance of

sensibility. Her gait is somewhat shuffling, and there is some tendency to festination. There are no cerebral symptoms, with the exception of occasional attacks of vertigo. Her eye-ground is normal.

Case IV.—Charles W., æt. 46, an American, and by occupation a farmer, was admitted on September 13, 1876, and presented the following history, which—in consequence of his impaired memory—is unfortunately very incomplete.

For many years he had suffered from bleeding hemorrhoids, and as a result of this his health had been much undermined; but he does not appear to have been laid up until after his present troubles began. About four years ago he was taken with a "twitching in the back" on exertion, and increasing weakness of the lower limbs. Some time afterwards the arms began to grow weak.

On admission he has a stupid, semi-idiotic appearance, and answers questions in a slow, drawly sort of way. His eyesight is poor, but there is no nystagmus and no double vision. While he is in the sitting posture there is decided tremor of the head, but none of the extremities. In the effort of rising, however, the whole body is agitated, and continues to be so until the movements of volition are suspended. He walks with his body bent forwards, and has difficulty in clearing the ground of his feet. The loss of power in the upper extremities is also marked, the grasp of the hand of both sides being very feeble, as shown by the record of the dynamometer: R. 105°, L. 95°. He has a subjective feeling of numbness in the hands and feet, but sensibility when tested by the compass-points is found to be quite normal.

Remarks.—The cases reported above are well-marked examples of a very interesting and uncommon disease, and of one which, singularly enough, was not minutely described until 1862, when Vulpian and Charcot published a series of cases. Before this time isolated cases had been reported, the first by Cruveilhier in 1835, but the disease was not acknowledged to be a distinct one until after the appearance of the reports alluded to, and even then its recognition was entirely confined to France and Germany. This seems strange to us, now that we know that the disease has a definite lesion and is accompanied by a pretty constant train of symptoms. It must be borne in mind, however, that from the nature of the lesion the symptoms known to be peculiar to the disease may be greatly modified by being mixed up with those belonging to other disorders of the cerebro-spinal axis. The lesion—so minutely and accurately described by Charcot in his Clinical Lectures on Diseases of the Nervous System—consists in the development of sclerotic patches, or islands, in the substance of the brain and cord. These islands are irregular in form, and in the cord are scattered, generally, throughout its whole length, and without respect to its division into columns and gray matter. Some preference, however, is shown for the antero-lateral columns. In the brain a much more decided preference is shown for certain regions, but even here the patches are occasionally found freely disseminated in all parts, with the exception of the gray matter of the convolutions, where they are seldom, if ever, found. The chosen parts are the walls of the lateral ventricles, the septum lucidum, the pons, and the floor of the fourth ventricle. These morbid foci are not made up of new elements, but are the result of a localized hyperplasy of the normal connective tissue, and of its gradual substitution, through compression and absorption, for the nervous tissue proper.

From such an indiscriminate scattering of the patches throughout the substance of the brain and cord, the protean type of the disease is not to be wondered at: indeed, it is remarkable that there are any distinctive features at all.

Three forms of the disease have been recognized,—the cerebral, spinal, and mixed or cerebro-spinal; but I shall limit my remarks to the latter, as being the one most frequently met with, and as having a direct bearing upon my own cases.

In glancing over the symptoms presented by the cases, it will be seen that the most striking are increasing loss of power in the extremities, accompanied by a peculiar form of tremor, developed by voluntary movements, and unaccompanied by disturbance of sensibility. These, of all the symptoms of sclerosis in scattered patches, are usually the most prominent, and are the ones chiefly concerned in enabling us to distinguish the disease from other forms of cerebro-spinal disorder. The other symptoms are referable to the head. They are vertigo, a peculiar difficulty of articulation, disturbance of vision, nystagmus, and a characteristic facies.

The tremor, which was so marked a symptom in all of the cases reported above, generally follows the paralytic weakness; but it is occasionally found to have begun with it, or even to have preceded it. Its most striking peculiarity, and the one which

at once distinguishes it from all other forms, is that it occurs only during the willed movements of the patient, and ceases when he is in a state of absolute repose,—as, for instance, that of the recumbent posture. In the sitting posture, tremor of the head and trunk will be seen, because a degree of muscular effort is required to keep them erect, but the extremities are as quiet in this posture as in the recumbent.

In addition to the peculiarity just mentioned, there is another, also separating the tremor of this disease from other forms,—namely, its kind. It is large and rhythmical, resembling, in some respects, the disorderly movements of chorea,—so much so that at one time multilocular sclerosis was called choreiform paralysis. The points of difference, however, now known to exist between the two disorders are so numerous and well defined as to preclude the possibility of an error in diagnosis.

The tremor is seen in its greatest perfection during movements which require some little time for their execution,—such, for instance, as the lifting of a glass of water to the mouth. The hand begins to shake when the glass is seized, but the tremor increases more and more, until, finally, towards the close of the act, it has become almost violent.

The trembling of paralysis agitans differs from that of scattered sclerosis in that it is constant, and, instead of being increased, is rather lessened, by voluntary efforts; it is, besides, smaller and more regular, and seldom, if ever, affects the head.

In sclerosis of the posterior columns, or progressive locomotor ataxia, when the upper extremities are involved, there are certain abrupt and even wild gestures, which may somewhat resemble the movements of disseminated sclerosis; but if we were unable to distinguish the two diseases by their irregular motions, we should find, by going a step farther, that the disturbed power of localization accompanying the former does not, as a rule, exist in the latter, and that the movements of the one, and not of the other, are exaggerated when the patient is directed to close his eyes. Thus, if we were to ask a patient affected with insular sclerosis to close his eyes and place his finger upon a given point of the face, he would, in spite of the increasing tremor, touch the part indicated with accuracy. The hand of an ataxic, however, raised in such a manner, besides being jerked wildly about, would strike wide of the mark. There are, it is true, some cases of scattered sclerosis in which ataxic symptoms are mingled with the symptoms properly belonging to the disease to such an extent as almost to deprive it of its identity; but these are rare, and are the result of an excessive development of sclerotic patches in the posterior columns of the cord.

The paralytic symptoms, always very gradual in their development, begin, as a rule, in the lower extremities, and are occasionally limited, for some time, to one leg. The upper extremities next grow weak, but the loss of power in them advances even more slowly, and rarely, if ever, becomes absolute. In the lower limbs, however, after a very indefinite period of years, the paralysis ultimately becomes complete, but, curiously enough, the sphincters seldom participate. Another peculiarity of this form of paralysis is that it is very seldom accompanied by loss of sensibility. The patient, it is true, often complains of a feeling of numbness in the hands or feet, but this is transitory and subjective.

The sensation of a band about the waist, so often complained of by patients suffering from other spinal disorders, is also very seldom present, and in regard to the electric response of the muscles, it may be said to remain normal throughout the whole course of the disease. A few cases have been observed by Charcot in which wasting of muscles analogous to that of progressive muscular atrophy was noted, and in connection with these he gives the results of two autopsies, in which he found a lesion of the anterior cornua of the gray matter in certain regions of the cord,—a lesion similar to that now known to be associated with the disease mentioned. This is another illustration of what has already been said, that while sclerosis in scattered patches does express itself by a group of constant symptoms, it may also, from the very nature of its lesion, be associated with others differing from it in every particular.

The cerebral symptoms of multilocular sclerosis are, in most cases, well marked and peculiar. They are, as I have said, vertigo, difficulty of speech, disturbance of vision, nystagmus, and a characteristic facies. Vertigo I have found to be a

symptom of common occurrence in the early stage of the disease, though there does not seem to be any particular mention made of it in connection with the cases recorded by others. Impairment of vision is also an early and a very common symptom, and occasionally adds materially to the patient's sufferings. Charcot states, indeed, that it may result in complete blindness. Examination of the eye-ground reveals, in most cases, commencing, or even advanced, atrophic changes.

In regard to nystagmus, Charcot says that it occurs in about one-half of the cases; but I have not been able to verify his statement, as out of twenty or more cases recorded in the books of the Infirmary for Nervous Diseases, during the past two years, I find it mentioned but once, and then it was only feebly pronounced. (Case I.)

The countenance, in the more advanced stage of the disease, is dull, stupid, and strongly expressive of mental inactivity. The physiognomy of the disease, as a whole, indeed, forms a picture pitiable to behold, and never to be forgotten.

In addition to the symptoms above mentioned, there is, occasionally, paralysis of one or more of the cranial nerves, but this is rarely seen, and is due to the development of a sclerotic mass at or near the point of origin of the affected nerve. In Case II., for instance, the right facial nerve was palsied.

Knowing, as we do, that the glycogenic centre is situated in the floor of the fourth ventricle, and knowing that this is one of the chosen seats for the development of the patches of multilocular sclerosis, I have been led of late to examine the urine for sugar in all cases which have come under my observation, but the results have invariably been negative. I still believe, however, that sugar may occasionally be found. The point is, at least, worthy of future inquiry.

The treatment of multilocular sclerosis is, unfortunately, very unsatisfactory. I have seen slight, though not permanent, improvement following the prolonged use of small doses of corrosive sublimate, and a similar result from the employment of nitrate of silver; but the improvement has been so slight as to afford but little encouragement. I have seen the tremor, however, lessened by the exhibition of hyoscyamus in increasing doses; but its controlling power is not to be compared to that which it has in diseases associated with tremor of a purely functional kind.

PERI-NEPHRITIC ABSCESS.

REPORTED BY DR. TRAILL GREEN.

Read before the Medical Society of Northampton County, at its meeting in Easton, October 18, 1876.

MARCH 31, 1876, I was called to attend E. F., a girl aged 13 years, suffering from extreme pain in the right lumbar region. I learned from her mother that she came home on the evening of the 27th, complaining of pain in the right hip, with a limping walk. On the 28th the pain had increased, but she attended school as usual, and assisted in the intervals of school hours in household work in the family of a neighbor. In the evening the pain was still worse, and now was more in the lumbar region than it had been during the day. She retired early, after the application of some domestic remedies. I saw her, as stated above, on the 31st. I found her suffering from pain in the right lumbar region, unable to move upon the bed without help from her mother. She had always been in good health, and was stout and strong for her years. The father and mother have always been in good health, as were all the children, of whom there are eight. No symptoms of strumous disease had appeared at any time in any member of the family.

The girl had been in attendance at school, and had assisted a neighboring woman in her work in the intervals of school-time. It had been part of her work to carry coal from the cellar to the third story of the house. She and her mother referred the attack to this work. There was no disturbance of the general system; the thigh was drawn up and flexed on the pelvis, and the leg on the thigh, with great pain in the knee. This pain was superficial, as she complained when it was touched slightly. There was no swelling and no increase of temperature at the joint. We would naturally ask, Is this a case of coxalgia? Coxalgia does not occur so suddenly, and progresses slowly after it commences. The symptoms are never so severe in the commencement, and many months may elapse without becoming materially worse. I found no elongation of the limb, no flattening of the buttocks, no depression in the lumbar region, and no pain in the hip from pressing the head of the femur into the acetabulum. There was pain in the lumbar region near the vertebræ. Is it caries of the spine? This disease also comes on slowly, with a gradual loss of health; deformity is an early symptom, and the pain is central, increased by pressure on the spinous processes, and is usually in the dorsal region. The gait of the patient is early characteristic of the disease, both limbs are feeble, and the

patient supports the body by resting the hands upon the thighs. This patient could not walk or rise from her bed after the 28th inst., the second day of her illness. I eliminated in this way the supposition that I had a case of caries of the spine.

At this time there was no swelling at the seat of pain in the lumbar region, but great tenderness to the lightest touch. I considered it a purely local disease, directed warm applications to the part, and a purgative, which was repeated on the following day.

April 2.—The pain had become so great that it was necessary to resort to the use of opiates. Morphia was administered, and opiates were continued daily throughout the disease, at times using in place of morphia tincture of opium. She slept but little, and, notwithstanding the use of opiates as freely as I felt safe in using them, she suffered much from pain.

April 4.—I employed chloral and camphor as a local anæsthetic, with some relief.

April 5.—Applied a blister.

April 7.—Action of the heart was accelerated without increase of heat; added to the treatment tincture of aconite internally.

April 9.—Directed a poultice, as the symptoms denoted a commencing suppuration. From this time, for several days, colchicum and opium were administered, and the patient was seen by Dr. Edward Swift, as I was absent from home.

April 15.—I detected fluctuation deep below the surface and near the vertebræ, and, in the presence of Dr. Swift, I thrust in a lancet, and obtained a free discharge of healthy pus. From this time the flow of pus continued till the 4th of May, when it ceased, and the poultice was no longer used. Iron by hydrogen, quinine, and citrate of iron were used, and the patient was carried to the first floor of the house on the 2d of June, where she sat in a chair and enjoyed the society of the family.

For some time she crept up-stairs and over the floor on her hands and the left leg. I directed her to support herself upon the back of a chair, and, pushing it before her, to move through the house. At this time she was unable to put her right foot upon the floor, by reason of the contraction of the flexors of the leg which she had so long kept contracted. At this period she was visited by Dr. McIntire. After a short time she made use of crutches, and at the opening of the schools in September she entered upon her studies, soon gave up her crutches, and now has the perfect use of her limb.

The suppuration and the seat of it, with the early period at which it occurred, made the nature of the case quite clear, and the result, as we now have it, leaves no doubt as to the diagnosis. During the progress of the case, some time in April, I found an abstract of a paper on this disease, read by Dr. J. P. Gibney before the Medical Library and Journal Association, published in the April number, 1876, of the *New York Medical Journal*, page 423. Dr. Gibney reports nine cases very similar to mine, which came under his observation at the Hospital for Ruptured and Crippled. Seven of these cases resulted in suppuration and two in resolution. The ages of the patients varied from eighteen months to ten years,—none, therefore, so old as my patient.

Dr. Gibney applies the name of Peri-Nephritic Abscess, which certainly is appropriate.

The early age of the patient is another element in the disease which would lead to the diagnosis of coxalgia or caries. I have had it in adult life, when it was not difficult to determine the nature of the disease.

DIPHTHERIA.

BY W. G. COTTON, M.D.

IN the *Times* of October 14, 1876, in an article, "Some Practical Observations on the Differential Diagnosis and Treatment of Croup and Diphtheria," Dr. William S. Stewart gives his treatment of diphtheria, and thinks those who have not followed his line of treatment will be compelled to say "Eureka" when they do try it. Now let me relate to you a series of almost complete failures under treatment almost so exactly similar that any physician will be compelled to acknowledge his remedies are not cures at all. It is well to publish at times our failures, and not constantly be reciting our cures. And I feel satisfied there are physicians all over these United States can substantiate the assertion that we have no cure for malignant cases of diphtheria. On October 9, I was called to see a child of J. L., aged about seven years. She had a malignant attack of diphtheria. I gave her a solution of chlor. potassæ, also tinct. ferri chlor. and sulph. quiniæ; the quinine in large doses. For a wash I used bromo-chloralum. After requesting consultation, Dr. Winnett was called on the following day. The only change made by him was to use the liquid persulphate of iron as a topical application. This was the same treatment Dr. Stewart uses, except he orders aromatic sulphuric acid instead of the tincture of iron, and he did not use the bromo-chloralum. But this child died in

a few days, and another child, younger than the first, became affected in the same way, and died also the day following. They had extensive patches on the fauces and in the nares, with a hemorrhage of thin blood from both the mouth and nose. There was a very offensive odor of actual decomposition of tissue previous to death. To the above treatment we gave a nourishing diet, with wine in the way of a stimulant, and used cold applications about the neck and throat. Soon after this I read of Dr. Stewart's plan of treatment, and as we had more cases coming on in the same family, I immediately made the slight change from the tinct. ferri chlor. to the aromatic sulphuric acid. Of the three new cases one was a girl aged sixteen years, and as she had but a slight attack, she was well in a few days; and a boy aged eight years, not so severely attacked, also recovered. But a girl aged twelve years, being held more like the first two children, although not so bad at all, finally died under the treatment laid down by Dr. Stewart. I have always been of the opinion that the way a case of diphtheria terminates depends more on the severity or slightness of the attack than upon the kind of remedies used.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. T. G. MORTON.

Reported by S. B. Collins, M.D.

I.—SCROFULOUS SYNOVITIS OF FOUR YEARS' STANDING—AMPUTATION OF THIGH.

JOSEPH W. H., æt. 32, married, a laborer, of American parentage, was admitted to the hospital May 31, 1876. In 1872 the left knee began to swell. This difficulty increased to 1875, when abscesses opened, and sinuses were formed on both sides. On admission there was discharge of pus, with partial anchylosis of the joint.

Treatment.—Free incisions were made by Dr. Hunt, and iron, quinine, etc., given. August 4, no improvement except in the general health of the patient having taken place, ether was administered, an Esmarch bandage applied, and the thigh was amputated by Dr. Morton at its upper third. Teal flaps were made, which, after ligation of vessels, were loosely brought together with silver sutures; free drainage being allowed. The patient rested well. Whisky-punch was prescribed, with a good diet.

On August 6, primary union had united flaps to a considerable extent; there was slight discharge of pus. Patient's appetite returning, and his appearance better than before operation.

August 10, steady improvement. An examination of the knee showed extensive ulceration of all the cartilages, and necrosis of the tibia as well as of the condyles of the femur, extending into the shaft of the latter bone.

II.—LARGE ENCEPHALOID TUMOR OF BREAST —EXCISION.

Mary D., æt. 65, single, a domestic, of Irish birth, was admitted on August 1. Eighteen months previous, she had noticed a small lump on her right breast. It grew rapidly, and six months since opened of its own accord. On admission the patient was weak and anæmic, with a large fungoid growth, excavated in the centre, red at the edges, and secreting a fetid yellow pus, occupying the whole of the position of the right breast. This tumor had very loose attachments, and was, according to the best measurements I could make, seven inches long, five wide, and two in thickness, being of a cauliflower shape, with a comparatively small base. The patient, who was much exhausted from drain and the horrible odor of the mass, was at once put on tonics and stimulants, and a strong solution of permanganate of potassa was applied to the ulcerated surface.

On August 4, Dr. Morton operated by making a vertical incision on each side and forcibly removing the growth. Owing to the free arterial supply of the tumor and the venous congestion of the surrounding parts, a fierce rush of blood ensued. Pressure and pins controlled the hemorrhage, and the bleeding points were afterwards successively ligated. The edges of the wound were then drawn together by silver sutures, but a considerable opening was necessarily left.

August 10.—Patient has had no bad symptoms, and is gaining strength rapidly, her general health having been wonderfully improved by the removal of the offending mass. Wound healing by granulation, with but little discharge. Dr. J. G. Richardson, after a microscopic examination, has pro-

nounced the tumor, in spite of its somewhat unusual appearance and position for this variety, to be an encephaloid cancer.

III.—PISTOL-BALL WOUND OF THORAX—PARACENTESIS THORACIS.

Richard P., æt. 29, married, a stonecutter, of American birth, was admitted on July 3, in a state of shock, having just been shot with a small ball, which entered three inches below left nipple. There was great pain and tenderness on pressure in the neighborhood of the wound.

Treatment.—Mainly expectant; whisky, morphia, and beef-tea given from time to time.

On the 6th, face jaundiced; pain on pressure over liver; morning temperature, 101½°; pulse, 100; respirations, 28.

8th.—Great dyspnœa; pain increased by pressure over left lung; rapid rise of temperature to 103½° in the evening.

13th.—The severe diarrhœa which has lasted for several days seems to be yielding to opium. Temperature about 100°, with slight evening rise; pulse, 100.

23d.—Still some diarrhœa; complains much of chest, but examination deferred on account of its causing him so much pain. Morning temperature, 100°; pulse, 112; respirations, 28. The patient seems now to have fallen into an irritable hectic state, attended by diarrhœa, emaciation, and want of appetite. On the 30th, Dr. Morton took charge of the ward, and the ball was removed from the man's back, having passed directly through his body.

August 4.—The diarrhœa has ceased. Decrease of tenderness, but complete dulness on percussion over left lung from apex to base; intercostal spaces obliterated, and ribs seem to bulge out. The apex of the heart is found directly under the right nipple. Dr. Morton made a slight incision with a bistoury in the fifth intercostal space, three inches back of the left nipple. After repeated attempts to use an aspirating-needle, which brought away only a few drops of pus, an ordinary trocar was thrust in, and one quart of thick fluid, consisting of broken-down blood, pus, and serum, was evacuated. In the evening the temperature was 101°, lower than it had been at that time for the four previous days. On the 6th, the canula, which had been left in, was removed, and a drainage-tube substituted. The apex of the heart was still found under the right nipple. The patient's pulse had risen to 120, but his temperature remained at from 100° to 101°.

August 10.—The patient seems weaker. The discharge of pus, now very fetid, continues. The tympanitic sound over the left lung which followed the operation has given place to a more healthy resonance, and a slight respiratory murmur is heard. The heart has moved three inches farther towards the right. The temperature has decreased.

In spite of the serious condition of this patient, the history of previous operations of the kind which have taken place in the hospital would encourage a favorable prognosis. Dr. Morton has now under treatment for ulcer of the leg a man about whom I have obtained the following particulars from the notes of Dr. J. A. Lippincott, service of Dr. Levis. Jacob R. P., aged 40, single, a farmer, born in the United States, was stabbed early in September, 1875, with a carving-knife which entered the second intercostal space, on the left side close to the sternum. Much blood was lost; the hemorrhage being finally controlled by pressure. Pain and tenderness afterwards set in, with bulging of the left side and difficult respiration. When admitted, on September 22, the patient was pale and debilitated. Pulse 130, and feeble. Respirations 48, temperature 99½°, "orthopnœa marked." There was bulging of the left thorax, with complete flatness on percussion below and decided dulness above third rib. On the right side, as was to be expected, there was increased resonance and puerile breathing. Paracentesis thoracis was performed "between the fifth and sixth ribs," and "sixty-four ounces of altered blood were drawn off with the aspirator." There was an immediate amelioration of all the symptoms, and "the breath-sounds became more normal." On the 29th the temperature rose to 104½°, with pain and signs of a reaccumulation of fluid. The patient was put on stimulants. On the 5th of October the case became complicated with phlebitis of right leg. (There had been more or less œdema of legs for some time.)

October 6, "Dr. Levis reopened aspirating wound by incision, and allowed the escape of a purulent fluid." The pleural cavity was washed out with carbolized water, and this was repeated from time to time. On the 17th there was a chill. On the 31st, diarrhœa had appeared. But the

patient, in spite of this, now began to grow stronger, though pus still continued to drain from "the tube," and the injections were kept up. On January 3, 1876, the patient had gained seven pounds in two weeks. On the 13th there was a drawback, and temperature rose to 101°; but February 1, wound had closed, the tube having been withdrawn about nine days previously. On the 4th the upper part of left side was somewhat depressed, but clear on percussion to the fourth rib, and below that tympanitic. There was some dulness "in the line of the axilla." The heart, which during the progress of the case had been greatly pushed out of place, was now found to have its apex-beat "about one inch below and two and one-half inches internal to the left nipple." The patient was discharged cured.

When patient was readmitted in August of this year, the respiratory sounds and percussion-note of the left side very closely resembled those of the right. Occasionally a slight friction-sound was audible, and there was some retraction at the left apex, but practically the left lung was as sound as the right. The apex-beat of heart was in about normal position, and there was a faint systolic murmur which may have existed before original injury.

In the *Medical Times* of February 6, 1875, page 294, Dr. John B. Roberts reports a previous case of paracentesis at the Pennsylvania Hospital, undertaken for the relief of pleural effusion following gunshot wound, which in many respects closely resembles the cases above stated. At the end of three and a half months the patient was walking about the wards, and within two weeks has presented himself perfectly well at the hospital. Among other points of interest it is to be noticed that in all these cases resort was finally had to a free incision, although on each occasion the aspirator was first used.

TRANSLATIONS.

Carbolated Camphor and its Therapeutic Uses.—Dr. Soulez (*Bull. de Thérap.*, v. 2, 1876, p. 145) gives the following account of this substance. It is made by dissolving 2.5 grammes of powdered camphor in 1 gramme of phenic acid (a solution of the strength of 9 grammes in 1 gramme of alcohol). The solution is of an oleaginous consistence, pale yellow, smelling slightly of camphor, but having none of the disagreeable odor of carbolic acid. It boils at a slightly elevated temperature without decomposing, and also by the addition of concentrated alcohol, which throws down the camphor in crystals; similarly, if a boiling solution of carbolated camphor is poured into cold water it instantly solidifies. It is miscible in all proportions with olive and almond oils. Chemical examination shows that the carbolic acid and camphor are not altered, and that they preserve all their properties in solution.

In using carbolated camphor as a dressing, M. Soulez employs cotton impregnated with the mixture of this compound with olive oil. This is placed in contact with the wound, and covered with six successive layers, each slightly larger than the preceding, of cotton impregnated by pressure with the emulsion of carbolated camphor, with infusion of saponaria. To prevent evaporation, these layers of cotton are covered with a piece of sheet rubber, and above all another layer of cotton retained in position by a bandage.

Before applying the cotton prepared thus, the wound is bathed in the oleaginous solution, and the dressing is usually renewed every six days. Sometimes it is allowed to remain in place for ten days.

Dr. Soulez claims as the result of using this dressing: 1. Diminution of reaction after severe operations; 2. Cessation or amelioration of pain; 3. Less abundant suppuration. Several cases are given by Dr. S. to illustrate the effects of this application. x.

Pigmentation of the Skin in Patients poisoned by Sulphide of Carbon.—M. Laboulbine (*La France Méd.*, 1876, p. 393) has observed in his service at the Necker Hospital a young patient, who, while working in preparations of sulphide of carbon, was seized with disturbance of sensibility, and presented here and there on the legs patches of pigmented skin. M. Delpech, who was called in consultation, had observed two similar cases. Six months later, M. Laboulbine observed a second case in a young girl of 16 years. Her intelligence was profoundly affected. She presented points, spots, and patches of a regular form over the limbs. She quitted the hospital, and continued her work in sulphide of carbon, but soon returned, suffering with albuminuria, from the effect of

which she finally died. No opportunity offered for making a microscopic examination of these patches. x.

The Incubation of Variola and Scarlatina.—Dr. Felix Marchand (*Berliner Klin. Wochens.*, No. 28, 1876) gives the following cases. A patient was admitted into the hospital November 17, who had been taken sick on the 15th, and already showed a somewhat extensive eruption of scarlet rash. This increased until the 20th, becoming, for the most part, miliary in appearance. Scarlatinous polyarthritis of the joints of the hand, finger, and foot, also a slight diphtheritic affection of the throat, subsequently developed. On the 20th of November a second patient was brought into the ward, who was thought to be the subject of scarlet fever. The following day this patient was found to be suffering from smallpox, and was immediately removed to another ward. On November 29 and 30, the first patient was without fever, and his skin desquamating. The evening of the 30th (ten days after the reception of the smallpox patient), he became again feverish, and developed smallpox. The attendant who removed the second (smallpox) patient from the scarlatina ward, though only there a few moments, contracted scarlatina after three days' incubation. x.

Torsion in Large Arteries.—Tilleaux (*Berliner Klin. Wochens.*, No. 30, 1876), at a stated meeting of the Société de Chirurgie, March 22, 1876, maintained the superior advantages connected with the use of torsion over the ordinary method of ligature. During the last five years he has used this procedure in more than one hundred cases where large arteries were involved. A pincette alone is required, with which the free end of the artery is twisted until it separates from the rest of the vessel. It is not to be seized perpendicularly, but slantingwise. Since he began to use this method, Tilleaux has never had a secondary hemorrhage, in addition to which the wound always has healed more favorably. Previous to employing this method, Tilleaux made various experiments upon the cadaver, twisting the central end of the femoral artery, divided in its lower portion, and injecting water, from an opening made higher up in Scarpa's triangle, with considerable force. In no case did rupture take place at the point of torsion. Anatomical examination showed that after torsion the tunica externa forms a plug of one centimetre in length, that the internal and middle coats are crumpled up in the axis of the vessel, and that true valves are formed against which the clot forms, which, subsequently, becomes incorporated with the inner wall. x.

Ganglionic Lymphangiectasis.—M. Nepven's (*Bull. Gen. de Thérap.*, v. 2, No. 3, 1876) paper on this subject, read before the Société de Chirurgie, is based upon observations by the author and others. M. Nepven's case is as follows. A young man of 20 years, living in l'île Maurice, had a tumor in the groin, which, from time to time, became the seat of inflammation, followed by augmentation in volume and exaggerated sensibility of the ganglions. M. Verneuil, who was consulted, found an analogous mass in the subclavicular regions. The patient having contracted a blennorrhagia, complicated with orchitis, had an inflammatory exacerbation in the ganglionic system of Scarpa's triangle, so that variously sized "kernels" could be perceived in the axilla, while the usual elongated red stripes of lymphangitis could be distinguished down the arm. This attack was accompanied by serious symptoms, the temperature being 103.1°, the pulse 120, respiration 44. The conjunctivæ presented a subicteric tint.

M. Nepven's conclusions are as follows: 1. Ganglionic lymphangiectases sometimes present glandular paroxysms. These attacks supervene upon great fatigue or overexercise. Malarial poisoning is also sometimes concerned in their etiology. 2. The local phenomena are entirely of an inflammatory character. 3. The general phenomena comprise severe chills, with or without delirium, followed by profound coma, almost typhus-like. These symptoms last from ten to twelve days. 4. Although cases usually terminate favorably, death may occasionally result from some of these symptoms. 5. Hard œdema, with tumefaction of the ganglions, persists after the attacks. 6. Cold baths, leeches, and cataplasms constitute the treatment. x.

Salicylate of Ammonium as a Substitute for Salicylic Acid for Internal Use.—J. F. Martenson (*Centralbl. f. Med.*, No. 19, 1876, p. 352) suggests the use of this salt, which is easily made by saturating the aqueous solution of the acid with ammonia or its carbonate. It is easily soluble in water and alcohol, has a sweetish

taste, and is tolerably stable. One hundred parts contain about eighty-nine parts of salicylic acid. X.

THE USE OF CARBOLIC ACID IN RENDERING OPERATIVE INTERFERENCE POSSIBLE IN DIABETIC PATIENTS (H. Fischer: *Deutsche Med. Wochenschr.*, 1876, No. 14).—F. alludes to the great frequency of diabetes at the present time, and calls attention to the fact that operative interference upon those with this disease is attended with much danger, since phlegmonous affections develop so readily, and recommends the avoidance of this danger by the use of the carbolic acid treatment of Müller and Ebstein. For some time before the operation he prescribes 0.3 grm. carbolic acid daily, and keeps up this treatment until entire healing of the wound. The remedy is also of use when phlegmonous affections already exist. This treatment has proved itself least efficacious in cases of diabetic carbuncle. W. A.

AN ANTISEPTIC OCCLUDING APPARATUS (Trendelenburg: *Centralblatt für Chirurgie*, 1876, No. 9).—This apparatus, which is only adapted for small abscesses and small wounds, consists of a little cone of gutta-percha paper, which is opened at the top, and has a rim at the base 1 cen. in width, which sticks upon the skin. After this cone has been filled with a solution of carbolic acid, and an incision made into the abscess, a plug of india-rubber with two holes through it is inserted into the upper orifice of the cone. Through the holes in this stopper go two glass tubes, on which are two rubber tubes, one longer than the other. The shorter one is held as perpendicularly as possible, while the other hangs downwards into a bottle filled with a solution of carbolic acid, which stands near the bed, somewhat beneath the base of the wound. W. A.

REDUCTION OF TEMPERATURE OF WARM-BLOODED ANIMALS (A. Horwath: *Arch. f. d. gesammte Phys.*, Bd. xii. p. 278).—According to previous observations, warm-blooded animals cannot live when their bodily temperature has been reduced below +19° C., but die with symptoms of asphyxia. H. found that by maintaining artificial respiration he could reduce the temperature of young dogs, by putting them in ice-cold water, as low as +5° C. without fatal results. When the animal is plunged into cold water, as a consequence of the contraction of the cutaneous vessels there is at once an increase of pressure in the arterial stream. As the temperature of the body falls, the blood-pressure in the arteries, either suddenly or gradually, becomes almost nothing; while in the veins, even after cessation of the heart's action, it remains comparatively high. Hearts, when removed from the body, show a frequency of pulsation depending upon the temperature of blood which is artificially forced through them, so that this influence does not necessarily operate through the central nervous system. The livers of animals killed by cold were always found hyperæmic, and there was often coagulation within the vessels.

In most cases asphyxia must be looked upon as the cause of death, since the use of artificial respiration puts off for so long a time a fatal termination. W. A.

THE TREATMENT OF ARTICULAR RHEUMATISM WITH HYPODERMIC INJECTIONS OF CARBOLIC ACID (Senator: *Berl. Klin. Wochenschrift*, 1876, No. 6).—Senator has injected, in accordance with the suggestions of Kunze, a dilute solution of phenol at the most painful points about the affected joints, with good results. Three joints at most were thus treated at the same time, so that more than 0.09 grm. of phenol never entered the organism. The action, if it occurred at all, took place very quickly. The smaller joints seemed to be but slightly influenced; the larger ones, especially the shoulder, foot, and hip, were much more markedly susceptible to its action. In some cases which had been improved but not cured by the use of salicylic acid, excellent local effects resulted from the injection of carbolic acid. W. A.

THE INTERNAL USE OF SALICYLIC ACID, ESPECIALLY IN ACUTE RHEUMATISM (Reiss: *Berl. Klin. Wochenschrift*, 1876, No. 7).—Reiss concludes from numerous observations of his own, and from those made by others, that salicylic acid acts as an antipyretic in acute articular rheumatism, that the depression of temperature produced by it is usually conjoined with a remission of the attack, and that it appears probable that in favorable cases which come under treatment at an early period the duration of the disease is shortened by this mode of treatment. In some phthisical cases in which the acid has been given, symptoms of collapse have followed its administration. W. A.

MEDICAL TIMES.

PHILADELPHIA, NOVEMBER 11, 1876.

EDITORIAL.

DELAYED GERMINATION.

ONE of the most curious phenomena of vegetable life is the long continuance of the latent power of germination in seeds. It is well known that in many pine-wood regions cutting off the evergreens is at once followed by an abundant growth of young scrub oak, although no such trees are in the immediate neighborhood. The age of the pine in some of these cases is evidence that the acorns must have lain hidden in the ground for at least half a century. In a recent visit to a barren sea-coast, our attention was called to certain oases of white clover. On asking how they originated, we were told that it was only necessary to spread the mud out of the salt marshes over the sand to have, in a few months, a mat of clover. The seeds could hardly have preserved their vitality in a marsh almost daily covered by the rising tide, and it appeared as though the seashore was composed not so much of sand as of clover-seed.

One of the most extraordinary examples of this persistency is stated in the *Journal des Sciences Médicales de Louvain* to have recently occurred in Greece. Pliny and Dioscorides describe a plant of the poppy family, belonging to the genus Glaucium, with a beautiful yellow corolla. This has been unknown to modern science, and must, therefore, at least as a European plant, have been extinct. The mines of Laurium, near Athens, which were worked by the ancient Greeks, and afterwards abandoned, have recently been reopened. They contain much scoria, or slag, left by the ancient Greeks, and wherever this has been spread upon the surface of the ground an abundant crop of the glaucium has appeared.

The conditions usually assigned as the necessities of germination are heat and moisture; but the glaucium seeds in the mines, or the acorns in the soil of the pine forest, had plenty of these. It would seem as though light was also a necessity, and that it was owing to its stimulus the seeds brought to day germinated. It must, however, be very minute.

SIR WILLIAM GULL.

AS we once before intimated, a good deal of feeling was excited among the English profession by the testimony of Sir William Gull at the Bravo inquiry. The especial portion which led to the disagreement between Sir William and Dr. Johnson was the statement to the jury that "he [Sir William] was taken to a man believed to be dying of disease, and found him to be dying of poison;" and thereupon, "on his own responsibility, and without consulting with his colleagues," told him he was dying of poison; the truth being that Dr. Gull was called to the case as one of poisoning, although no doubt his assertion was due simply to defective memory. The testimony was uncalled for, and looked like a slur upon the professional gentlemen previously in attendance. It is not surprising, therefore, that Dr. Johnson took the matter up with some warmth, and that the affair ended in an appeal to the London College of Physicians. The Censors of that body have reported that the perusal of Sir William Gull's evidence was calculated to lead ordinary readers to conclusions prejudicial to the position of Dr. Johnson and the other medical attendants of Mr. Bravo; and that such portions of his evidence were, therefore, "very objectionable;" although they entertain no doubt that there was no intention on his part to disparage the professional character of Dr. Johnson and his medical colleagues.

They also state that the infringement by Sir William Gull of at least the spirit of

the by-law of the College in regard to consultations was "disastrous."

Since the report of the Censors it is stated that Sir William Gull has done the wisest thing he could under the circumstances, *i.e.*, he has addressed to Dr. Johnson a letter expressive of a desire to resume mutually friendly sentiments and relations; and to this Dr. Johnson has replied in the same spirit.

TELLURIUM.

THIS rare element, which in general characters resembles somewhat sulphur, selenium, and others of the so-called metalloids, possesses certain properties which are not unknown to scientists, but to which we would call attention, hoping that mayhap some of our readers will have sufficient enthusiasm to press forward further investigation. Many of the compounds of the element are possessed of the most abundant supply of the most superior quality of stenches. Other compounds are odorless, and yet when taken into the human system develop a latent power which far outshines the utmost efforts of the Mephitis mephiticus. If even as much of one of these compounds as represents a half-grain of the element be taken, the perspiration, breath, secretions, excretions, and neighborhood of the subject become permeated and saturated with an odor which is unspeakable. Nor is it an affair of a few moments. For days, weeks, and even months, the peculiar smell remains. The compound to which it is due has not been isolated, but is probably formed by the union of tellurium with allyl, or a similar principle. Who will isolate it?

THE Fellows of the College of Physicians of Dublin, a licensing body, having the power to grant the legal right to practise medicine, have, after due deliberation, determined to admit a lady to the examination for the L.K.Q.C.P.I. According to the *British Medical Journal*, this may be looked upon as the beginning of the end, as it is believed all the other similar bodies will, one by one, follow the lead of the Irish college.

THE brightness of the prospect of physical reformation of the world, and the correctness of human nature when caprice or passion is crossed by the sanitary law, are illustrated by the case noted by Prof. Maudsley in a recent introductory address, "of a man who is so deeply interested in the doctrine of crossing that every hour of his life is devoted to the improvement of a race of bantam fowls and curious pigeons, and who yet married a mad woman, whom he confines in a garret, and by whom he has insane progeny."

AT the recent meeting of the hygienic congress at Brussels, it was proposed to organize a society of the Black Cross to supplement that of the Red Cross, the duty to be the burial of the dead after battles.

THE London *Lancet* says the number of subjects awaiting dissection is very satisfactory. We wonder if they wait with satisfactory patience?

DR. J. G. MCKENDRICK has been appointed Professor of the Institutes of Medicine in the University of Glasgow.

CORRESPONDENCE.

LONDON LETTER.

SINCE I last wrote, the medical schools have again assembled for their winter's work. Of course this event has drawn forth a large number of introductory addresses, in which a number of most excellent sentiments have been uttered. St. Bartholomew's allows its sessions to open without any such formal introduction; thinking, probably, that "Barts" is big enough and strong enough to do without it. Guy's, too, this year, has followed suit, and done away with the introductory address. It may be not entirely uninteresting to your readers to glance at some of the points mainly urged by the different speakers. Dr. Mitchell Bruce, at Charing Cross, took up the question of the twenty per cent. of failures. It

appears that of every one hundred youths entering as medical students, not less than twenty fail to complete their education, and so never enter the profession. This is a very serious matter, involving much misery and much useless expenditure of time and money. He urged, as did many others, the better education of the aspirants, so that there should be less risk from inadequacy of knowledge. Then he very properly pointed out the evils of the present style of teaching. A constantly growing percentage of men go up to the examination-table carefully crammed, rather than really fitted for the ordeal by sound knowledge, while the teaching tends to become more and more tutorial. Consequently, of those who pass, a large number are most unfitted for the practice of their profession. As long as the lists of passes and rejections at the College of Surgeons are published, with the percentage of each belonging to the different schools, so long there must be a rivalry betwixt them, and the pass become the chief matter of teaching, rather than the fitting of the men to meet disease single-handed in actual practice. At St. Mary's Hospital the address was delivered by Dr. Wiltshire, who pointed out the double relations of the profession to the public, in preventive or public, and curative or private, medicine. He showed how important a matter health is, and how much the public are interested in the subject. He also defended the profession from the charges of indifference to suffering brought against it by the popular anti-vivisection agitators, and pointed out its great sympathy with all creatures in pain. At University College Hospital, Prof. Maudsley gave the address, which, as might be supposed, was most interesting. Dr. Maudsley's works are sufficiently well known to all, and his vigorous expressions of his views, the keenness of his discernment, and his capable intellectual grasp, made all interested in what he had to say. He pointed out the intrinsic nobility of the pursuit chosen, the excellence of medical study as a means of intellectual and moral training, and its rich crop of benefits to mankind. No other profession could so well afford to go without extraneous titles of honor and dignity. He did not advocate the suggestion that peerages should be conferred upon medical men, and feared if they were given that a pitiful social ambition might cause the simple nobility of the profession to be spoiled by decorations which had their origin in, and really belonged to, a childish stage of human progress. He then referred to the relations of mind and body, and showed that it was only through our knowledge of the latter that we could form proper comprehensions about the former. He told how by a careful study of nature we could come to understand her phenomena, and so have just opinions about the relation of man to his surroundings. He said that all along men had engendered disease by the indulgence of their passions, and that if disease were swept from the face of the earth to-day they would breed it afresh before to-morrow's dawn. It must be the aim of medical science in the future to give men such an exact knowledge that they shall learn to live by and conform to the laws governing health and development, instead of violating them habitually through ignorance or indifference. Man is the highest product of evolution; and the highest faculties of his mind were not implanted ready-made in his nature at any period of his history, but were the slowly-won results of the accumulated experiences of the race, transmitted by hereditary action. The problem of to-day is no longer the schoolman's vexed question of the origin of evil, but a question of the origin and growth of good. Our plain duty is to search for and find out the laws which have been at work in this process of human evolution, and so to continue it,—to carry on by deliberate method and conscious purpose what has been going on during ages irregularly and blindly. In the face of what was constantly shown in the modifications produced in animals by selective breeding and training, it was the rarest thing for man in thinking of marriage to estimate the ills which may be so entailed upon his offspring. Disease was propagated as if it were a supernatural affliction which was not spread by natural laws. Man behaves in relation to the laws which govern human evolution, much as primeval savages behaved in relation to the laws of physical nature. In fact, Prof. Maudsley looked at the subject of disease from the evolutionist's stand-point, and told us how much benefit would accrue from the study of the laws affecting evolution. The influence exercised by man upon his progeny furnishes some of the strongest facts which should guide conduct, and in the hereditary transmission of qualities we find the most powerful factor that can be found, why man should continue to improve himself physically and morally, and hand over to his descendants intact and untainted, and, if anything, elaborated, the constitution which he has received from his ancestors.

At the London Hospital the students were addressed by Dr. Andrew Clarke, the senior physician to the hospital. He referred to the recent additions made to the hospital, which constitute it the largest hospital in London; and, after addressing some remarks more especially to the students, he went on to say, "We, who as a body give gratuitously to society the largest services, receive from the State in return the least consideration. Our formal remonstrances remain too often unheeded, and the recommendations of our official representative have been, on several occasions, either ignored or opposed. All its regulations for civil and military service are framed on the principle of securing the

cheapest rather than the best material; and thus, while the profession is straining every nerve to raise the educational and personal qualifications of its members, the State is practically, if not intentionally, undermining its efforts." His remedy is, that the profession should become more loyal to itself, and more active in the assertion of its rights; but still more, and here Dr. Clarke touches the centre of the question, "until every member of it feels, and acts as if he felt, that upon his own efforts, as much as upon the efforts of any other person, the future of medicine will depend." The reputation of the profession is the aggregate of the individual reputations of its members; and as long as one man is slack in his efforts to make the best of himself, and as long as there is left one man who strives to mount on the wreck and ruin of a brother's reputation, so long will the profession be without that public recognition which so many of its members crave.

It is gratifying to find a man of Dr. Clarke's age and position recognizing so fully as he does the advantages to be derived from the study of physiology, and the value of physiological knowledge in actual practice. He says, "Give the strength of your minds, then, to physiology; first, in the dissecting-room, that you may master completely the relations of parts and organs to each other; next, in some quiet corner, with your microscope and reagents, that you may learn the minute structure and chemical relations of tissues and organs; afterwards, in the laboratory with your teacher, and in solitude with your book, that you may comprehend the whole function of the organism in life and health; and lastly, in the wards, where you will exercise and strengthen your new-got knowledge in the physiological thinking out of disease." After speaking of the study of clinical medicine, he said, "As you become familiar with the coarser, you will make acquaintance also with the finer manifestations and distinctions of disease. You will learn how often permanent pathological changes grow out of long-continued, little disturbing things, and how greatly all of these are influenced by trivial changes in the conditions of the atmosphere and of the soil. You will discover how to distinguish structural from functional affections, which so often assume their guise, and to discriminate between maladies arising accidentally in the healthy, and apparently similar maladies which are the inevitable outcomes of long-continued textural decay in sickly people. You will note how different often are the successive examples of the same disease, and you will cultivate the faculty which in each case will enable you to decide how much belongs to the malady and how much to the man. You will pursue the personality which you have isolated, and ascertain how the course of its disorder is influenced by inheritance, by type of constitution, by mental and moral peculiarities, and by physical habit and occupation. At last you will become personally interested in your patients, and then, out of the sympathy which you give them, you will gather your first experience of the precious gift of healing power."

The hard, shrewd sense which has lifted Dr. Clarke into the position he occupies now, is well seen in the following, which must be my last quotation from him: "In the next place, your hospital experience will dispose you to make much more gloomy than is necessary the prognosis of organic disease. As you walk along the wards, and note case after case in which heart, or lung, or kidney is diseased, and learn that each will soon end in death, a habit of fatal prognosis attaches to the name instead of the stage of the malady, and hereafter you transfer to the private patient at the beginning of an illness the experience you have gained from the hospital patient at its close. There is then, perhaps, some ground for the opinion that the prognostics of hospital physicians are unreliable. Assuredly the prognosis of disease, as it is commonly taught in the schools, is much too grave, and requires to be remodelled on a more favorable foundation. You will find it anything but a satisfactory proceeding to receive the apologies of patients for being alive years after you have, with unhesitating confidence, condemned them to die." The same applies to treatment. "You will be in peril of forming false judgments of the true position of drugs in the treatment of disease. Many of our patients, before admission, have been for years fighting with their maladies, until at last, unable to fight any longer with them or with work, they take reluctant relief in the hospital. And as drug after drug is tried for their relief, seldom with good, and often with ill effect, and as day after day the disease, despite of all that is done, pursues its natural course to the end, you begin to believe in the fatality of disease, and, doubting all curative power in drugs, you commit yourself at last to the therapeutic nihilism of the day. But this is a false and paralyzing conclusion, which, as it seems to me, has a closer alliance with indolence, imperfect observation, the habit of incredulity, and a certain defect of judgment, than with the vaunted enlightenment which is claimed to be its founder." These remarks of Dr. Clarke's are appropriate and well timed. The progress of pathology, or more properly work of anatomy, though good in its way, has tended to throw therapeutics into the background; but the study of pathological processes in the living will tell how many an evil may be met and staved off if taken in time, which is irremediable if a therapeutic skepticism has let the case proceed unalleviated till the evils are actually present. In fact, a hospital training has its drawbacks, both for teachers and taught alike, if the lessons learned there are not corrected by the lessons of private practice.

A number of other addresses, of varying ability, were delivered at the other medical schools, and the winter session of 1876–77 opened very successfully. The number of student entries at some of the hospitals is much larger than any previous year; one hundred and thirty-four having entered as freshmen at St. Bartholomew's alone. As well as the opening of the medical schools, the different societies are opening for the forthcoming session. The Medical Society held its first meeting on the evening of Monday, the 16th, and a warm welcome was given to the President, Mr. Wm. Adams, and the Senior Secretary, Mr. Richard Davy, on their return from a visit to the Philadelphia Congress. After going over some home matters, the President, in his address, gave an account of his visit and his impressions of America and American surgery. He spoke of the cordial welcome given to the British delegates by their American confrères, and the courtesy shown to them in placing them in posts of honor. He told of the honor done to him personally as the President of the venerable Medical Society of London, and of the respect paid to the other delegates. Upon his arrival at Philadelphia, two days before the meeting of the Congress, he found his writing-table not only loaded with private invitations to dinner, evening receptions, and suppers, such as Americans alone know how to give, but professional obligations of the highest importance were thrust upon him. He spoke warmly of the high character of the addresses given at the Congress, and of the quality of the work done in the Sections. In addition to the attendance upon the Congress, he visited the hospitals of Philadelphia, with which he was much pleased. He said, too, that the attendance of students at the various classes was much greater than anything we had in this country. He fully endorsed all that Mr. Erichsen had said of American surgery. He then referred to the large museum at Washington, under the care of Surgeon-General Barnes, and expressed his great admiration of it. He also spoke most favorably of the "Soldiers' Home," over which Dr. Billing personally conducted him. He then went to New York, and inspected the surgical institutions there. He said American surgery was essentially English. In passing through the wards of the various hospitals, he saw the same surgical appliances as are used at home. The principle of weight-extension was largely put in force in the city where it first originated, both for the treatment of fractures of the thigh and for the relief of pain in acute diseases of the hip. Mr. Adams naturally devoted much attention to the American treatment of this affection, and said that it was to Dr. Davies we owe the first appreciation of its modus operandi in relieving two articular surfaces from the close contact caused by reflex muscular contraction. He said the plan of weight-extension was not so general in this country as it might be with advantage. He said American surgeons are good anatomists and dexterous operators. There was a mechanical genius in Americans which showed itself in surgical inventions as much as in the construction of engineering works and waterworks, or the invention of machinery. In practical surgery there is much need of mechanical skill, and in the application of surgical instruments, as well as invention of them, American surgeons displayed the greatest possible ability. This tribute to American surgery was received with cordial applause; and, as a recognition of the visit of the Society's delegates to Philadelphia, four distinguished Americans were made honorary fellows of the Medical Society of London, viz.: Prof. Gross, Prof. Austin Flint, Prof. Joseph Pancoast, whom Mr. Adams designated the Astley Cooper of America, and Surgeon-General Barnes, of Washington. The visit of the English delegates to Philadelphia seems to have welded together English and American medical men even more firmly than before. The extensive sale of American works on medical science in England shows the esteem in which the men of the New World are now held.

There was little of interest to your readers in the subjects brought forward at the different societies, unless it was the discussion as to the relative merits of the subcutaneous saw of Mr. Adams and the chisel of Mr. Maunder in operations upon the femur. It would seem that the chisel is rapidly coming to the front, and that the progress of cases after operation is much more satisfactory with the chisel. So far, the results of the chisel have been most encouraging. At the Pathological Society, Mr. Barker, of University College, showed the aorta and its lower branches from a young man, where the atheromatous process was just beginning. At certain points there were swellings under the endarterium, consisting of a hyperplasia of young cells. The interest centred on the position of these points. They occurred where the iliacs touched the pubic bone, and again at the popliteal space where the arteries came in contact with the hard structures of the knee-joints. That side of the artery touching the bone was alone affected; in the iliacs, the posterior surface; in the popliteals, the anterior. It was pointed out by Mr. Hulke that these points were also points of flexure, and that the disease was found at the outside of the curve, in accordance with what is usual in the production of atheroma. Mr. Barker's ingenious hypothesis therefore must be held to be still unproven. The claims of animals upon us as blood-relations are now receiving much attention, and the views of Darwin and Herbert Spencer are spreading rapidly; but the story I am about to relate puts these claims in a new light. The chaplain of a hospital I visit asked my advice

on the following matter. He had been applied to, as chaplain to a cemetery, to inter some remains lying in a certain workhouse. The doctor could not say whether the body was male or female, nor indeed whether it was human or the remains of a monkey. Under these circumstances the reverend gentleman, though a good-natured man, did not see his way to formal interment. My advice was to have a proper certificate from the medical man that the body was that of a human being before interring it. As the doctor could not, or at any rate did not, do this, no formal interment took place; but the reverend gentleman told me he saw some one hanging about next afternoon, during the funeral service, and slip a packet into one of the graves as it was filled up. It was very kind of this some one to get decent burial for his doubtful kinsman, far removed at the best; but the idea of requesting Christian burial for a simian blood-relation from a clergyman of the Church of England is novel, and certainly indicates, in a very suggestive manner, the progress of present thought. If clergymen are to be required to pronounce our simian relations to be Christian brethren, and to admit them to a future state, the community of descent of man and animals need no longer be a matter of dispute. If the matter was a joke, it is about the grimmest joke ever perpetrated.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, SEPT. 14, 1876.

THE PRESIDENT, DR. WILLIAM PEPPER, in the chair.

Cancer of the stomach. By Dr. LOUIS STARR.

F., æt. 24, a sailor, was admitted to the Episcopal Hospital on May 2, 1876. His family history was healthy. He had always been temperate, had never had syphilis, and had enjoyed good health until the spring of 1873, when he began to be troubled with pain in the epigastrium, and noticed that his ordinary duties aboard ship were more fatiguing than before; nevertheless, he was able to keep at work up to February, 1876. After this date the pain grew much more severe, he lost appetite, weight, and strength, and his bowels became constipated, his abdomen slightly distended, and his complexion muddy. There was also occasional vomiting, the matter ejected always consisting of food and mucus, and never containing blood. The constipation and distention were readily relieved by the administration of purgatives and the application of cold compresses. The pain and prostration, on the other hand, increased, and for a short time before coming into the hospital he had been unable to leave his bed. When admitted, he was greatly emaciated. His skin was harsh and sallow, though the conjunctivæ were clear and the eyes peculiarly bright. The tongue was smooth, the mucous membrane of the mouth pale, the appetite poor, and there was slight nausea, but no vomiting. The pain, which was almost constant, was situated in the epigastrium, and at times extended from this position towards the back. It was described as burning or twisting in character, and was augmented by taking food. The abdomen was scaphoid, the pulsation of the abdominal aorta could be distinctly seen and felt, and there was tenderness on pressure in the epigastric and umbilical regions. No tumor could be discovered. The heart and lungs were healthy.

For a time the patient seemed to be benefited by treatment, his appetite and strength returning, and the pain becoming less marked. He soon relapsed into his former condition, however, and there was no further interruption to the steadily progressing weakness and loss of flesh. Numerous attempts were made to discover an abdominal tumor, without success. During the last two weeks of his life there were several short attacks of diarrhœa, and during the last three days slight vomiting. Death took place on June 2.

The *autopsy* was made twelve hours after death. All the viscera were found to be normal except the stomach and large intestine. The stomach was adherent over its upper and posterior surfaces to the neighboring parts, and its interior was occupied by a cancerous growth. This involved the lesser curvature, and extended over the greater part of the anterior and posterior walls of the organ, the edges almost meeting below. The posterior two-thirds of the growth had undergone softening, leaving a large, irregular, and very ragged ulcer, surrounded by a thick, everted margin, while the anterior third was composed of hard nodules, some of which were nearly as large as English walnuts. The tissues immediately beneath the position of ulceration were so much altered in texture as to be torn by the slight traction that was made in removing the viscus. The cardiac and pyloric orifices were perfectly patulous. There was no cancerous deposit in the fundus or along the greater curvature, but the mucous membrane in these situations was thickened and covered with tough mucus.

The large intestine was intensely congested.

The chief point of interest in this case seems to be the disproportion between the extent of the disease and the symptoms that were present during life; still, the absence of an abdominal tumor and the rarity of vomiting may be easily accounted for, the first by the position of the growth and the presence of adhesions preventing any descent of the stomach, and the second by the fact that neither orifice was obstructed.

The specimen was referred to the Committee on Morbid Growths, which reported, October 26, that the specimen was one of "*scirrhus ventriculi.*"

Typhoid fever; supervention of hectic fever at thirtieth day; evidences of septic poisoning; death from exhaustion; lesions of intestinal glands; ulcerative endocarditis; infarction in spleen; abscess of pancreas; suppurative parotitis. By Dr. WILLIAM PEPPER.

Mrs. M., æt. 45, enormously fat and heavy, was admitted to the University Hospital about the twelfth day of a severe attack of typhoid fever. Extreme prostration and profuse diarrhœa were the most serious symptoms. After progressing fairly well until about the thirtieth day, irregular but severe hectic appeared, diarrhœa returned, with horribly fetid stools, and numerous ulcers formed over the surface of the body. These were preceded by small pustules with livid red bases. Rapid swelling of both parotids developed. For a time improvement seemed to follow the free use of salicylic acid; but, despite the arrest of the diarrhœa, exhaustion progressed, and death occurred on the forty-second day.

At the *post-mortem* examination, there were quite numerous ulcers in the ileum, chiefly occupying the site of Peyer's patches, but sometimes that of solitary follicles. They were all clean, without elevation of their borders, and reached down to the muscular coat. The mesenteric glands were moderately enlarged, with excess of pigment. There was a large, wedge-shaped infarction in the spleen, of yellowish color, and evidently about to disintegrate. There was diffuse suppuration of the head of the pancreas, with breaking down of the gland-tissue. The enlarged parotid glands were also in a state of diffuse suppuration. There were no infarctions in the lungs, liver, or kidneys.

The heart was enlarged. Under one leaflet of the mitral was a calcareous nodule. The leaflets were thickened (old), and on their free borders were two small elevated ulcers. There was also slight thickening, but without vegetations or ulceration, of the aortic leaflets.

Dr. R. M. BERTOLET remarked that it was impossible to say at this stage whether it was the recent or old endocardial change which caused the infarctions in the spleen and integument. At any rate, it is rare to have evidences of minute infarctions on the surface and only on the spleen, while the kidneys escape altogether. On the other hand, we would have expected to find multiple miliary abscesses in the kidneys. He would, however, inquire of Dr. Pepper whether he regarded the numerous points of ulceration of the skin as embolic in their origin or due to local thrombosis.

Dr. PEPPER suspected this was their mode of origin, but was not certain. He had observed the same kind of spots on the skin where there were no causes like these to account for them. It is quite possible, however, that they were preceded by thrombosis or minute embolisms, and that the same process which caused the patch of disease in the spleen caused also the necrotic abscesses on the back. Careful examination showed that there were absolutely no infarctions in the liver or kidneys.

REVIEWS AND BOOK NOTICES.

A CONTRIBUTION TO THE TREATMENT OF UTERINE VERSIONS AND FLEXIONS. By EPHRAIM CUTTER, A.M., M.D. Second Edition. Entirely rewritten. Boston, James Campbell, 1876.

"Entirely rewritten," but the new face cannot hide the old friend. The author is still an enthusiast. His description of an anatomical plate reads like an art criticism. We turn the page, and find portrayed only the pelvic viscera. He calls the os uteri "the orient point" (p. 153), with "tips and turns" (p. 178). Describing the muscular vagina, he rapturously exclaims (p. 4), "What more physically perfect support! How very analogous to an elastic and yielding spiral spring, which presents the most admirable features for keeping up the womb!" Yet he is methodical and exhaustive. All possible displacements of the vagina are classed under four heads,—upwards, centripetal, centrifugal, and downwards. The first, the author tells us, "is difficult to conceive of;" the second is also "difficult to conceive of;" the third, the uterus might conceive of, but we confess we cannot; therefore, the fourth, or downwards, is the only possible displacement: a very exhaustive method, and the uterus is studied in a similar manner.

In the chapter on retroversion (p. 11), we are told "the amount of backward obliquity varies from a displacement of a few degrees from the natural position to about 180 degrees. Take an instance," he says, "where the variation is about 135 degrees (a common case)." Our author, who, on page 6, has counted the wrinkles of the vagina, here goes further. Henceforth, to the implements of gynæcology must be added a nautical quadrant, sextant, and perchance chronometer, and in the coming age the medical man will never dream of approaching a case of uterine disease without taking a lunar observation. More delicate and refined than the physician of the present, our brother of the future for the vulgar speculum will substitute the telescope, and calculate uterine eclipses in his office at the mystic hour of midnight.

On page 14 we reach the gist of the book, and our old friends, the "loop" and "T" pessaries, make their appearance. In fact, the work may be considered as the apotheosis of the "loop" and "T" pessaries.

The "loop pessary of the writer"—this is used, we presume, only by literary women—presupposes a considerable amount of intellectual ability and culture in the victim—of displacement. It "includes a belt of inelastic webbing, thirty-six inches long, to go squarely round the waist." We are glad to see that a modification has been made in the instrument since the first edition of the work, and that a joint has been inserted in the middle of the hook of the pessary, for purposes of defecation, as before it seemed almost an antidote for diarrhœa. The wearer is now spared the agony of suspense, and contests between the will and the sphincter, or the spirit and the flesh, are materially lessened.

In the introduction of this pessary the author informs us that he places the patient "on a table or bed, or other support;" tells her to project her left arm "out behind," and bring her "left *mamma*"—but how if she be an orphan?—"in contact with the supporting surface" (p. 21). At this stage the operator's left fore-finger is "anointed with soap and water." If our memory serves us, the author's views of unguents have materially changed. To say nothing about "anointing" with soap and water, he has abandoned his early fondness for lard, which in the first edition he "liked" so much. The style of the author, as we have hinted already, is far from perfect; he is also at times obscure. In speaking of vaginometry, and introducing to us his vaginometer and vaginal sound, two important adjuncts to the "loop and T" pessary, he says, "This procedure seems to me to coincide with the dictates of common sense, as no artist in the various departments of appliances to the body, for the sake of protection from the inclemency of the weather, will undertake to make the products of his art without some system of measurement which is accurate and reliable," entirely ignoring the fact that if the weather is cold the artist will probably wear his overcoat.

(P. 27.) We observe that the hook of the pessary, still as of yore, "surrounds the perineum without touching it," and that air very naturally "circulates between." The author begins with short pessaries, and then advocates their gradual substitution by longer ones. He says (p. 34), "In these procedures one may begin with a very short instrument, and end with quite a long one." We suppose he has done so, and even with one short pessary it may be long before the patient tries another.

On p. 37 we find what may be termed the catechism of the pessary, which must be learned by heart before the patient can be trusted to manage its somewhat complicated mechanism. Hereafter, when ladies of delicate health are noticed repeating some formula under their breath, while the ignorant may say "silent prayer," the intelligent physician will diagnose "loop or T pessary."

But diet is an important element in the success of this instrument, and a table of diet has been thoughtfully furnished (p. 44), from which the patient is advised to select such articles as suit her constitution and palate. We see that air is mentioned as an article of food, and we confess the thought has occurred to us whether some woman scanning its contents, and seduced by the author's recommendation, might not select air, with fatal effect.

The ideas of the author about the uterus seem peculiar. He speaks (p. 49) of the organ being "vexed or riled up." Now, taking his own view, we would mildly suggest that nothing is more fitted to irritate and stir up the animal than perpetually poking and pushing it with the long loop or T pessary.

When these pessaries become old—for they really do grow old in time—full directions are given for tightening them up. The end of the rubber cord "may be cut off with the scissors, and the cord reattached to the pessary at a vital part." We didn't know they were alive till we read this.

But to those supposing that the invention of the loop and T pessaries may have exhausted the author's inventive faculties, we may mention at least the names of the "bracket," "cup," and "ring" pessaries.

The author finds his "chair an excellent medium for vaginal examinations," and gives minute directions concerning the position of the patient and the removal of superfluous dress. "Until the underclothes were the only dress worn, he was foiled in replacing a retroversion." Why shoes and stockings interfere we cannot see, and would like to know whether it is necessary to take down the patient's back-hair in very difficult cases.

The author asks, in this connection, "When the abdomen is artificially confined above and in front, where can the floating viscera go?" We cannot tell him. It is a mystery.

In the choice of a lubricant we find him cautious. He evidently now favors soap and water; but "it is not a matter of trivial importance," "as he once lost the case of a patient by not using glycerin." We advise all young men to use glycerin freely, lest a similar accident befall them.

But in the great question of the cause of uterine displacements, the writer holds decided views. The argument (p. 169) is simple, but exhaustive. "Flour is impoverished food. The prevalence of flour-eating coincides with the prevalence of uterine diseases." The author sagely adds, "Contemporaneousness and sequence are not always causation, still effects do follow causes." Henceforth, we doubt not, "flour-eating" will rank in gynæcological opprobrium with tight lacing, snuff-rubbing, high heels, and surreptitious Colbgne-water and chloral. On p. 179, he even terms one of his patients contemptuously "a flour-eater," as if it were some rare, but dreadful, vice.

And in concluding, we are told that were it not for the "curse of politicians, it would be

very proper for the Government to afford some patronage to investigations to be made in the cause of uterine diseases," which only adds another terror for the already perplexed patriot on election-day. Which party, we ask, will plant itself firmly on the platform of uterine inspection and uterine reform?

E. W. W.

A Practical Treatise on Materia Medica and Therapeutics. By Roberts Bartholow, M.A., M.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine, and formerly Professor of Materia Medica and Therapeutics in the Medical College of Ohio, etc. New York, D. Appleton & Co., 549 and 551 Broadway. 1876.

The author in his preface recognizes the necessity of an apology for bringing out, in the presence of so many works on therapeutics, a new book upon the same subject. To one who is aware only of the great number of such books which have recently been published, such an apology seems by no means uncalled for, while he who has looked among them for a book concise, clear, and practical, while fairly representing all the modern advances in pharmacology, is fully aware that there is still room, and that many attempts are yet to be made before the book we want shall appear. Such a book is an impossibility for the present; but the measure of success attained by Dr. Bartholow is a sufficient excuse for his venture.

In presenting to students the physiological aspect of the materia medica, two methods are available of utilizing the vast material collected within the last two or three decades: either the various authorities, harmonious and opposing, may be marshalled upon their respective sides of disputed or undecided questions, leaving the questions too often still undecided; or some plausible theory embracing as many facts as possible may be put forward, ignoring the existence of contradictions and incomplete observations. The former method has been chosen by Dr. Wood, and is, of course, by far the more scientific. The latter is that of Dr. Bartholow, and will commend itself, despite its obvious errors and omissions, to students, and to many persons who do not wish to make special studies in pharmacology and who are willing to purchase decision and brevity at the expense of minute accuracy. Such an exchange may be made with the less compunction, since the present state of pharmacology must be looked upon as one of transition, and, with a few exceptions, a large part of the present theories are reasonably sure to undergo essential alterations within a time short enough to permit one to learn and unlearn several tests within the period of mental activity where therapeutic theories possess interest or value. Dr. Bartholow treats the "practical" or clinical side of subjects at somewhat greater length. As space would not permit us to go deeply into particulars, we may say that the book represents, without an undue straining after novelty, what might be called the more progressive practice of this country. It is, on the whole, a fair exponent of "rational medicine," although it has seemed to us, in some cases, that hardly enough stress is laid upon the intrinsic tendency to recovery in very acute diseases.

A few points, noted here and there, may be specially commented upon. Under mercury, the author has made no mention of the observations of Wilbouchewitcz upon the *increase* of corpuscles in the blood of syphilitic patients under the use of small doses of mercury, the usual statement as to the diminution being given without qualification. This omission is not mentioned as a fair specimen of the completeness of the book, which is evidently written in the light of abundant literature, though but few formal quotations are made. There are several statements made in regard to alcohol to which we should demur, and which seem to us indicative of a somewhat less careful consideration of the literature of the subject than is claimed by the author; for instance, that the decline in temperature is due to a diminished rate of tissue-metamorphosis. It seems partly, at least, due to a cooling from a freer circulation in the skin.

It is certainly not in accordance with the evidence to state that there is a definite quantity of alcohol capable of being oxidized in the body, and that all in excess of this is eliminated. Dr. B. cannot have read all the papers of Anstie and Dupré, to which he refers, or he would not make this statement. Does alcohol increase the "functional activity" of the brain? Is garrulity a proof of increased mental action?

On page 418, we meet with one of those vague and utterly worthless statements so common in works on materia medica. It is fair to say there are but few of them in this book. "Chorea and epilepsy have been reported cured by this agent (boxwood), etc." If he could have mentioned some drug by which these diseases had *not* been said to be cured, the remark would have been more worthy of attention.

In his article on aconite, the author seems to share the somewhat exaggerated (as it seems to us) estimate of its power in inflammation entertained by Dr. Ringer. He has no desire, however, to be taken for a homœopath, as will be seen by the following "application," which would apply to some other drugs as well:

"The monopoly by homœopathic practitioners of the use of aconite has aroused a prejudice against it which has discouraged its employment. Aconite is, however, an antagonist to the fever-process; it is not applicable in accordance with the so-called law

of similars. It is used by these quacks because it is a powerful agent which will produce manifest effects in small doses, that may easily be disguised."

Our remarks have been directed chiefly to that part of the book devoted to drugs. It contains, however, elaborate and practical articles upon food, including some special diets, hydro-therapeutics, of which we are glad to see the author appreciates the great advantage in fevers, mineral springs, electricity, transfusion, and venesection.

In conclusion, we may express our opinion that the work is a valuable addition to the literature of therapeutics, and one well calculated to be useful as a text-book. The medical profession in America has no reason to be ashamed of the three works on this subject which have appeared in this country (or been re-edited) within the last four years.

R. T. EDES.

HARVARD UNIVERSITY.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. PLAYFAIR, M.D., F.R.C.P. Philadelphia, H. C. Lea, 1876.

A MANUAL OF MIDWIFERY. By ALFRED MEADOWS, M.D. Second American from Third London Edition, Revised and Enlarged. Philadelphia, Lindsay & Blakiston, 1876.

There is no essential advantage in the mere multiplication of text-books. Two manuals of Anatomy, Surgery, or Obstetrics, equally good, are of less value than one combining the peculiar excellencies of both. The student and practitioner have now such a very wide choice in obstetric text-books, and withal such little radical variation in the different works, that future writers might save both time and expense by publishing in very small space their points of divergence, forming addenda to the great mass of facts which no one disputes and which every one reprints. The real marks of originality, stamping the books before us as respectively the works of Drs. Playfair and Meadows, are comparatively few; here one illustration is better, there another, and everywhere a vast waste to ordinary readers of money, eyesight, and time. For the very multiplicity of manuals arises from the fact that each teacher finds it advantageous to himself and his students, and in fact almost a point of honor, to publish his own manual, which, from his position, commands a steady sale among his classes; but for the American medical reader, who is a student at large, gleaning knowledge wherever he finds it, the advantage of this state of things is not obvious.

The treatise of Dr. Playfair is excellent. Its aim is to be practical, and its forty-seven chapters all attest the author's success. The earlier parts are devoted to the study of the female organs, ovulation, menstruation, and kindred topics. Part II. takes up the subject of conception and generation very fully, after which pregnancy in all its varieties and diseases is discussed. The chapters on the signs and diagnosis of pregnancy are especially clear, full, and concise. The subjects of the pathology of the decidua and ovum, abortion, and premature labor bring us to Part III., or labor. Especially in this portion of the work the wood-cuts, everywhere good, are to be commended. They show what they are intended to show, and not something quite different. Occasionally the artist has attempted too much, as on page 264, but the error is in the right direction.

Perhaps no more useful chapter can be found in the book than that on the management of natural labor. This is a topic on which every true teacher should have something fresh to say from his own experience. The beginner, while advised to go promptly on being summoned to a case, is told plainly that if in ordinary presentations he finds the os no bigger than a shilling piece, he had better not stay, but go home and wait an hour or two,—advice which is definite, since a definite idea of the size of a "shilling piece" can be formed and used by the mind of a novice, saving him weary hours of irksome waiting, in which he has nothing to do, feels in the way, and is more likely to mar than to make his budding reputation!

Supporting the perineum, in the ordinary acceptation of the term, gives place with our author to a modification of the method advocated by Dr. Goodell. The author, objecting to the indelicacy of introducing the fingers into the anus, says, "If the thumb and forefinger of the right hand are placed along the sides" (of the distended perineum), "it can be pushed gently forwards over the head at the height of the pain, while the tips of the fingers may, at the same time, press upon the advancing vertex." This strikes us as a much more feeble method, and not likely to be very effectual.

Breech, face, and other abnormal presentations and their management present little new matter. Page 303 gives us an excellent illustration of the postural treatment of prolapse of the cord. The patient is in the knee-and-elbow position; and outlined within her, by dotted lines, sitting up comfortably in something closely resembling a small rocking-chair, is the fœtus, with its eyes closed and an expression of calm meditation upon its somewhat classic features.

The chapter on prolonged and precipitate labors is judicious and of great practical value. In the chapter on deformities of the pelvis the author's views concerning the forceps are fully explained. He acknowledges, p. 253, "that the proper management of labor in contracted pelves is, even up to this time, one of the most vexed questions of midwifery," referring of course to the lesser degrees of

deformity. Below three inches antero-posterior diameter, he considers the destruction of the child, or Cæsarean section, as unavoidable. He discusses the relative value of the forceps, version, and the induction of premature labor, fully. He says, p. 355, "that delivery is often possible by turning, after forceps and the natural powers have failed." As a matter of original choice he inclines to the use of the forceps, since moulding of the head cannot occur in version, from want of time, excepting, however, cases where "the head refuses to enter the brim and cannot be sufficiently steadied by external pressure," evidently cases of the greater contraction.

Page 358 gives us a table for determining the period for inducing premature labor, which may be useful for reference.

Page 359. In placenta prævia, if the fœtus is viable, the author would induce labor at once if hemorrhage occurs, and treats of the various methods of doing so which have been suggested. His own method is by the use of sponge tents, followed by Barnes's dilators and ergot as recommended by Dr. Greenhalgh; and, when dilatation is sufficient, version.

On p. 375, the author admits that a relaxed uterus does not always bleed, but claims that a contracted one never does unless lacerated. The binder too has not fallen entirely from favor, since "it is an effective means of keeping up, but not of producing, uterine contraction." Some little delay in its application is recommended, and the author's remark that when the pulse does not fall below 100 in ten or fifteen minutes after delivery, hemorrhage not unfrequently follows, is a good hint to some practitioners who ignore the formality of counting the pulse altogether.

The subject of "Turning" has a special chapter devoted to it. When the head has reached the fundus, the author thinks it generally advisable to finish delivery without unnecessary delay (p. 421),—much better advice, we take it, than that given in the manual of Dr. Meadows, who is disposed to trust the delivery of the head almost entirely to nature. As regards the forceps, the author uses Simpson's, introducing the blades (p. 432) in reference to the sides of the pelvis.

In puerperal eclampsia, he does not recommend bleeding except to gain time, in very urgent cases, for better remedies. The combination of chloral and the potassium bromide is a favorite with the author from experience, as also the subcutaneous injection of one-third grain of morphia. Venesection he would restrict to cases showing great vascular tension and lividity.

Puerperal insanity and puerperal septicæmia receive full justice in the latter chapters. The author is not a believer in a specific contagion, and his treatment as given, Part V. Chapter V., seems rather suited to mild than to severe cases.

The manual of Dr. Meadows has already gone through one American edition. We would call attention to the very useful tables (p. 115) for estimating the probable duration of pregnancy. The chapter on the forceps is exceedingly full, much more so than in the treatise of Dr. Playfair. No American modifications of the instrument, however, are noticed. The author places three and one-half inches antero-posterior as the limit to their application. He applies the forceps in relation to both head and pelvis (p. 238),—a somewhat difficult feat,—but finally inclines to the pelvic sides as the only true guide.

In version, rotation of the head to bring it transverse at the superior strait is recommended. We are somewhat surprised to see, on p. 291, that Dr. Meadows inclines to the belief that the unborn infant suffers, since he advises early breaking up of the medulla in craniotomy, for "in doing this we at once destroy all suffering in the child." The manual is, however, excellent throughout, and probably well known to most of our readers.

E. W. W.

GLEANINGS FROM EXCHANGES.

Puncture of the Pericardium (*The Boston Medical and Surgical Journal*, October 12, 1876).—In a paper communicated to the Académie de Médecine, by M. Henri Roger, the author dwells upon the difficulties in the diagnosis of pericardial effusions, and he quotes in illustration two cases operated upon by Tigla and Trousseau, in one of which a thin-walled dilated heart was mistaken for an effusion into the pericardium; in the other case an hypertrophied heart, surrounded by membrane floating in only a small quantity of serosity, was found post mortem. But even when the diagnosis is made, it is very difficult to decide on puncture, inasmuch as the grave symptoms may not be due simply to the presence of the effusion, and operation may do serious injury (in six out of fourteen cases collected by Roger, death followed so closely that it seemed to be attributable to or at least hastened by the operation). We must not forget, either, that evacuation of the serum in a case of acute pericarditis will almost necessarily be followed by pericardial adhesion.

Paracentesis of the pericardium is a far more delicate operation than puncture of the chest-cavity. The mammary artery coursing along four or five millimetres from the margin of the sternum, the diaphragm, the left lobe of the liver, sometimes much enlarged, the lung and pleura, and finally and most importantly the heart itself, have to be avoided by the surgeon. M. Roger quotes two cases, one of M. Baizeau's and one of his own, in which

the right ventricle was apparently punctured in operations designed for the relief of effusion into the pericardium, and one hundred and two hundred and twenty grammes of venous blood respectively removed. Both cases survived the operation. Another disagreeable occurrence which may happen, even if the right place be chosen, is that the puncture is followed by no escape of fluid. The pericardium, being only in lax connection with the wall of the chest, and much thicker and harder than the pleura, readily recedes before the trocar. With the fine needle of the modern aspirator, however, this is less likely to happen. The puncture should always be made directly from before backwards, with a slight subsequent inclination of the point of the needle downward, as advised by Dieulafoy, in order to avoid the ventricle during systole. The fifth intercostal space at a point intermediate between the sternum and the nipple, but rather nearer the latter, is the place to be chosen, as a rule, for puncture. But the heart's apex, instead of impinging against the fourth space or fifth rib, as is usual in such cases, may be lowered by dilatation, or drawn downwards by an adhesion to the diaphragm, when a lower point must be chosen for the puncture.

In only one case of the fourteen was a "true cure" effected, and M. Roger concludes that, notwithstanding undoubted improvement in the modern operation, it remains a dangerous and doubtful remedy, to be hazarded in extreme cases.

Dislocation of the Hip (*The Medical Record*, October 14, 1876).—At the meeting of the *Niederrheinische Gesellschaft* in Bonn, December 20, 1875, Professor Dontrelepont reported the following case:

About the end of May, a boy seven years of age met with a traumatic dislocation of the right hip, upwards and backwards. The luxation was not reduced, and when he entered the hospital on August 30 he was unable to stand on the leg; the thigh was strongly flexed, adducted, rotated inwards and shortened, and the head of the femur could be distinctly felt lying on the ilium. Permanent extension and counter-extension were at once applied, and on September 6 the head of the bone was drawn down close to the acetabulum, the shortening was almost overcome, and the flexion, adduction, and internal rotation were very slight. The patient was then anæsthetized, and the thigh was strongly flexed and adducted, and then rotated outwards without force, and the head of the bone slipped into the articular cavity with a snap. Slight inflammatory action followed, but when the case was reported the patient was able to move about, and the movements of the joint were almost normal. Professor Dontrelepont believes that easy reduction of this dislocation was due to the previous permanent extension, and thinks that in many cases of old luxations that resist the ordinary measures of reduction, the prolonged use of extension and counter-extension will stretch the muscles and ligaments, and make the head of the bone more movable, and so enable the reduction to be made. Even if this fail, the extension will place the thigh in a better position and make the joint more useful.

On the Use of Sulphide of Calcium in the Treatment of Scabies (*The Medical Press and Circular*, August 16, 1876).—Dr. Thomas Dolan asserts that an experience of seven years with over seven hundred cases of pure scabies has convinced him of the efficacy of the solution of sulphide of calcium in the treatment of scabies, and the satisfactory results obtained by its use induce him to call attention to it.

It has the merits of being cleaner, easier of application than the greasy substances usually applied, and if properly used results in a certain cure within a brief period.

It is made, as its name implies, from lime and sulphur; the following formula, from many others, may be used:

Flower of sulphur,	100 parts.
Quicklime,	200 "
Water,	1000 "

Boil the whole for some time, allow the liquid to cool, and decant into hermetically-corked bottles.

It is sold by chemists in the form of a bright yellow solution, and hence is popularly called golden lotion.

Before applying it the patients are ordered a warm bath, so as to cleanse the body and excite healthy skin-action; they are then painted with the solution and placed in bed in blankets.

Next morning they present a peculiar appearance, as, owing to the deposit of the sulphur, they are the color of a guinea. The beneficial results are soon manifest. The itching ceases, the *vesicles* shrivel up, and after another warm bath the patient may be discharged cured.

Extraction of a Bullet from the Brain (*The Louisville Medical News*, July 15, 1876).—Dr. R. O. Cowling reports the case of a boy, æt. 19, who shot himself in the temple with a No. 1 Smith & Wesson pistol, the ball passing into the brain through the centre of the temporal space. A probe was introduced for an inch and a quarter, but no further interference was made. His bowels were opened with a mercurial purge. He was kept under full doses of bromide of potassium, and in three weeks was able to go to work. Eighteen months later he was suffering from abscesses and severe neuralgia whenever the wound would close, and an operation was therefore undertaken for the purpose of removing some dead bone which was evidently present, and during its performance the bullet was luckily caught in the extracting forceps, and withdrawn. The wound subsequently closed, and the patient entirely recovered.

MISCELLANY.

Female Doctors at Zurich.—A correspondent of the *Bund*, of Berne, has lately summed up in successive letters from Zurich the present results of the much-contested "Damenstudium." It is now exactly ten years since the first female student clamored at the gates, or rather since the medical faculty opened the gates to her; for she had been attacking them by a diligent prosecution of the medical course. She was a young Russian lady. The University of Zurich, on the 14th of December, 1867, conferred upon her the dignity and rights of a doctor of medicine. Doctor or Doctress Erismann has since practised medicine with great success,—first alone, and later as the wife and partner of a medical man. Thirteen young ladies have followed her example, all of them standing the test of the severe examination with credit, and some with brilliancy. Each of these ladies has received from the medical faculty of the University the degree of Doctor of Medicine, Surgery, and Midwifery. Six of these graduates were Russians, two were Englishwomen (Miss Morgan in 1870 and Miss Atkins in 1872), one was a Scotchwoman, one an American, one a Swiss, and the remaining two were Germans. The American, a young lady from Boston, passed with great applause, and her public disputation before receiving her degree on the 22d of June, 1871, created much admiration. After a short but very promising practice, she lost her life by shipwreck in the Atlantic.

In 1872, when Zurich had braved the worst of the storm of ridicule and anger, the University of Göttingen found courage to stand at her side, and the first female academical student in the Netherlands passed a successful examination in physics and mathematics. The two latest, a Russian from Jaroslaw, and Fräulein Franziska Tiburtius, from the Island of Rügen, in the Baltic, have just maintained their theses and been admitted to the dignity and rights of a doctor's degree. The thirteen ladies who have received medical degrees are said to have exhibited an undoubted vocation for the profession. The extraordinary pressure of female students with which Zurich was threatened at the beginning of the movement has now subsided, and is not likely to recur. —*The Medical Press and Circular.*

A Sanitary Undertaker.—A newspaper, published a number of centuries ago, contains the following advertisement:

"James Maddox, coffin maker, and clerk of St. Olave, Jewry, London, at the sign of the Sugar Loaf and Coffin, in the Old Jewry, secureth the corps of any dead body from any ill scent or annoyance, without embalming, embowelling, or wrapping in sear cloth, for as long time as shall be required, or for as long time as they shall keep them above ground; and if it be desired, they may have a view of the face for three or six months, which he hath performed, as is well known to several persons of quality and others in and about the City of London. This is he that took up the corps at Painswick, in Gloucestershire, after it had been 13 weeks buried. He hath also an excellent way to take up any corps that hath been some time buried, and preserve the same from any ill scent for the conveying of it to any other place, as hath been eminently performed by him. He also (by God's blessing) hath cured several persons of quality of the gout, and giveth ease within half an hour, though the pain be never so violent."—*The Medical Press and Circular.*

Some Homœopathic Remedies.—A pretty lively discussion has been going on in the *Hahnemannian Monthly* as to the merits or demerits of "cimex" (physically speaking, bedbug) as a remedy. One writer declares that he does not see "the need and usefulness of triturated and diluted bedbugs," while another writer enters warmly into the defence of the agent, and quotes an author who has "cured with the sixth, and even the twelfth dilutions, the most malignant and obstinate tertian and quartan fevers." This writer also avers that "our literature contains splendid cures" effected by Bufo (bull-frog) and various spiders. The poison of hydrophobia, he says, has effected some remarkable cures, and "glanderin" (the virus of glanders) is a valuable remedy, and he pities the physician who ignores these articles. The effects of "cimex" on one subject are thus described: "At the setting in of the chilly stage, her hands become clenched, she becomes vehement, would like to tear everything to pieces, and her attendant is scarcely able to restrain her." *The Pacific Medical and Surgical Journal* says, "We confess that we can see nothing very extraordinary in such demonstrations consequent on swallowing a bedbug." It seems very much as though homœopathists were getting back to first principles, —snails, crabs' eyes, etc. In their search for novel remedies, we think they have at least certainly reached their *climax*.

A Hospital in a Crater.—The Board of Physicians of the Neapolitan Hospital for Incurables have determined to build a hospital in the crater of Solatana, lying between Naples and Pozzuoli, in Southern Italy. The vapor that arises from the crater has been found to be charged not only with sulphur but also with arsenic, and it is said that several persons suffering from lung-diseases have been restored to health by inhaling this vapor for a few weeks.—*The Medical Press and Circular.*

Peanuts *vs.* Olives.—Marseilles annually derives large quantities of peanuts from Pondicherry, which shipments have been largely augmenting. In 1874 thirty thousand bags were imported, and in 1875 one hundred and

eighty thousand bags. As peanuts are almost unknown as an edible in France, we infer that pressure is brought to bear upon them for the extraction of their oil, which turns up afterwards in our salads and Castile soaps.—*Chemist and Druggist.*

Remedy for Dandruff.—A French physician recommends to apply a solution of chloral hydrate containing five per cent. of the latter, by rubbing from half to one ounce into the scalp by means of a sponge, and repeating it every morning. A slight burning sensation and reddening of the scalp occur, disappearing after two minutes. If the hair had fallen off in consequence of the dandruff, it will be renewed in about a month.—*Apoth. Ztg.*, No. 25; *Am. Jour. Pharm.*

How to make Leeches bite.—The *Medical Press* quotes the following from *Le Progrès Médical.* We scarcely see how a glass half filled with cold water and leeches can be conveniently applied in all cases, but there may be something in the notion: "In order to make leeches 'take' immediately we should put them into a glass half filled with cold water. We should next carefully bathe with warm water the part to which we wish to apply the leeches, and then quickly apply the glass to the skin. By this means the leeches will attach themselves to the skin with surprising rapidity, the patient merely feeling one single bite. When all the leeches have taken, the glass should be removed in such a manner as not to wet the patient. To accomplish this it will be sufficient to receive the water at the most depending part into a sponge. If we wish to apply the leeches to only a very limited surface, all we need do is to place on the glass previously to its application a sheet of strong paper with a hole cut in it of the required size."—*Chemist and Druggist.*

Vivisectionophobia has attacked Paris.

Poisonous Effects of Santonin.—It is as well to remember that this useful anthelmintic is not without poisonous properties, even in comparatively small doses in some cases, for recently Prof. Binz reported a case in which a child of two years had taken one grain and a half. Violent convulsions set in, which commenced in the face and extended to the extremities, and at the same time respiration was much impeded. The means used for recovery were, warm baths, vinegar enemata, plenty of fluids to drink, and artificial respiration. Prof. Binz's experiments on animals demonstrated that the convulsions produced by santonin could be controlled by chloral or ether. He therefore recommends the same treatment in the human subject, conjoined with artificial respiration, and abundance of laxatives and diluents for the purpose of elimination.—*The Doctor.*

Traumatic Tetanus.—Dr. R. R. Lyons reports a case of recovery in man under the use of chloral.—*Richmond and Louisville Medical Journal*, Oct. 1876.

A New Test-Paper.—A new test-paper, invented by Waller, is, says the *Chemical News*, prepared by soaking strips of white paper in a solution of coralline. It is exceedingly sensitive to the action of alkalies; very dilute alkaline liquids instantly turn it a beautiful red color. Acids turn it yellow; but, as the reaction is less striking, Dr. Waller proposes to use it only for alkalies, as a substitute for red litmus.—*The Medical Press and Circular.*

A New Mucilage.—The *Journal de Pharmacie* states that if to a strong solution of gum arabic, measuring 8½ fluidounces, a solution of 30 grains of sulphate of aluminium dissolved in two-thirds of an ounce of water be added, a very strong mucilage is formed, capable of fastening wood together, or of mending porcelain or glass.

Aortic Aneurism: Cure.—Dr. John Duncan showed recently to the Medico-Chirurgical Society of Edinburgh a case of aortic aneurism consolidated and apparently cured by rest and the use of iodide of potassium.—*Medical Examiner*, April 20, 1876.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 22, 1876, TO NOVEMBER 4, 1876, INCLUSIVE.

Edwards, L. A., Surgeon.—Leave of absence further extended for six months, on surgeon's certificate of disability. S. O. 230, A. G. O., November 3, 1876.

McClellan, Ely, Surgeon.—To proceed to Columbia, S.C., and report in person to the Department Commander. S. O. 152, Department of the South, October 19, 1876.

Forwood, W. H., Surgeon.—To report in person to the Commanding Officer, Department of the South, for assignment. S. O. 219, A. G. O., October 21, 1876.

Jaquett, G. P., Assistant-Surgeon.—Assigned to duty at Edgefield, S.C. S. O. 157, Department of the South, October 25, 1876.

Brown, H. E., Assistant-Surgeon.—Relieved from duty in Department of the South, and to report in person to the Commanding General, Military Division of the Atlantic, for assignment to duty. S. O. 230, A. G. O., November 3, 1876.

Styer, Chas., Assistant-Surgeon.—Leave of absence extended twenty-three days. S. O. 213, Division of the Atlantic, November 1, 1876.

Hall, J. D., Assistant-Surgeon.—To accompany battalion of First and Third Artillery to Columbia, S.C., S. O. 206, Division of the Atlantic, October 18, 1876, and assigned to temporary duty at Columbia, S.C. S. O. 156, Department of the South, October 24, 1876.

Ewen, C., Assistant-Surgeon.—To accompany battalion of Third Artillery to Columbia, S.C., S. O. 206, c. s. Division of the Atlantic, and assigned to duty at Aiken, S.C. S. O. 155, c. s., Department of the South.

Ainsworth, F. C., Assistant-Surgeon.—So much of S. O. 182, c. s., A. G. O., as accepts his resignation, to take effect November 10, 1876, is revoked, S. O. 219, c. s., A. G. O., and to report in person to the Commanding Officer, Department of Arizona, for assignment to duty. S. O. 230, A. G. O., November 3, 1876.

Buell, J. W., Assistant-Surgeon.—To accompany Company A, permanent party from Columbus Barracks, Ohio, to Columbia, S.C., S. O. 155, Fort Columbus, New York Harbor, October 19, 1876, and assigned to duty at Blackville, S.C. S. O. 155, c. s., Department of the South.

PHILADELPHIA, NOVEMBER 25, 1876.

ORIGINAL COMMUNICATIONS.

ON MATERNAL IMPRESSIONS AFFECTING THE FŒTUS.

BY WM. T. TAYLOR, M.D.

Read before the Philadelphia County Medical Society, April 26, 1876.

IT is the popular opinion that mental impressions which cause fear or anxiety to the mother, in the early months of pregnancy, can produce deformity, arrest the growth, or cause some injury to the fœtus.

Although this is disbelieved by many, yet we occasionally meet with cases so strange and unaccountable that we are obliged to give some credence to the opinions of mothers as to the cause of this abnormal condition of their offspring. If mental and moral qualities, physical peculiarities and habits, and even diseases, of parents, can be transmitted to their children, why cannot defects or abnormal conditions of the physical structure occur, and why cannot the formation of the fœtus be arrested during the developing stage, when the organs must necessarily be in a plastic condition? We do not understand the problem of life, nor can we explain the mysterious union between mind and matter, nor the physiological connection between the mother and babe in utero, that it should resemble one or other of the parents; therefore we must admit that there is some reason for this general belief, however unnatural it may seem.

It is said that many mothers are apprehensive during their pregnancy of some impending evil to themselves or their offspring, and may even be exposed to shocking sights, which produce *no* effect on the fœtus, for there is no nervous connection between the mother and her unborn babe; but all are not equally susceptible to such influences, therefore this proves nothing in the special cases which *cannot* be explained.

These unnatural conditions are supposed to be produced in the second or third month of utero-gestation, when the organs are in a state of formation and the spinal column yet undeveloped, so that a severe shock to the nervous system of the mother might disturb or arrest the development of some part of the fœtus.

This theory of the influence of mental impressions on the pregnant female finds support in certain analogies observed among animals, as in the case mentioned in Genesis, chap. xxx., where Jacob caused the ewes of the flock to bring forth spotted and speckled lambs.

There is also on record the case of Lord Morton's mare of a chestnut color, which was covered in 1815 by a quagga,—a wild ass of the zebra species from Africa,—and after a pregnancy of eleven months and four days gave birth to a hybrid which strongly resembled the quagga. Subsequently, in 1817, 1818, and 1821 this mare was served by a black Arabian stallion, and produced successively three foals, all of which bore positive marks of the quagga, the first, however, in a higher degree than the third.

Instances, too, have occurred in which a negress has had a fruitful connection with a white man and all her other connections being with a negro, yet the offspring showed very decided traces of the white man.

My attention was directed to this subject from having met with the following case of spina bifida a few years since. Mrs. C., when in labor with her second child, after the head was born, felt and heard something burst during an expulsive pain, "like the explosion of an inflated paper bag," followed immediately by the delivery of the body. On my arrival, after removing the placenta, I perceived on the back of the child, in the lumbar region, the folded or collapsed walls of a cyst from two and a half to three inches in diameter, which had burst and evacuated its contents during delivery. It was partly covered with true skin, over the middle however of a red or livid hue, somewhat like a cancerous tumor, from which a bloody serum was oozing. On tracing down the vertebræ, there was some deficiency of the bony column under the cyst. A number of fibrous cords and vessels resembling veins sprang from the middle of this tumor. A ligature was applied around this mass, and it sloughed off; but the child became exhausted from the discharge, refused its food, had frequent convulsions, and died on the tenth day after its birth. The mother accounted

for this tumor from having been shocked during the second month of her pregnancy by one of her neighbors, who exhibited to her a tumor which had been removed from a friend's head a short time before, the sight of which so annoyed her as to make her feel quite sick. She remembers placing her hands on her back at the time, "because a chill ran through her backbone."

Several years ago a child was shown to me whose right hand had the appearance of having been amputated at the fingers, for it had four small rudimentary processes projecting from it, whilst the left hand was perfectly formed. The mother told me that in the early part of her pregnancy a beggar had presented himself to her, and thrusting forth his mutilated hand solicited charity, when she observed that it was devoid of fingers.

A young man came to me for professional advice whose hands were very much deformed, having only two long fingers and a thumb on each, with his forearms greatly shortened. His mother accounted for his deformity thus. When three months pregnant her husband took her to a theatre where the devil was personated in a hideous manner, with long claws, which greatly alarmed her.

A Mrs. S., when two months pregnant, saw a girl affected with strabismus whose face was covered with a mask; she was frightened at the time, and afterwards much annoyed, for the child's obliquity of vision was constantly before her. On the birth of her babe it was affected with strabismus, which still continues.

A friend of mine has a daughter with an apparent bruise on her face, which was caused by her mother having been alarmed during pregnancy at the falling of an older child, which bruised its face very seriously at the time.

A medical man told me that one of his children had a bare spot on its head, which his wife says arose from the circumstance that in the early months of her pregnancy she was frequently looking at the shining bald head of her father-in-law with an unaccountable delight.

An officer during the late war received a gunshot wound through the upper part of both thighs, which was dressed very assiduously by his wife, who was pregnant at the time. When their child was born, it had the appearance of cicatrices upon its thighs similarly situated to those of its father.

I was informed by Dr. Garretson a few years since that he had operated on four children of one family for cleft palate, and that in each case the deformity was less than the preceding one; the fifth child having only a split in the uvula. The first-born was very seriously deformed, and the mother much worried in consequence; but during her second pregnancy the operation and healing process had so closed the cleft that the maternal impression was not so vivid or shocking, and with each succeeding pregnancy she was less impressed, so that at the fifth occurrence of utero-gestation she was rather favorably impressed with the success of the operation, and her babe showed scarcely a trace of malformation.

Last year I attended a young woman who died of valvular disease of the heart, and during her sickness she was very carefully nursed by a pregnant sister, who was much distressed by the sufferings of the invalid, for whom she had great affection. When her child was born it was smaller and more feeble than her other children at birth, had a slow circulation, a difficult respiration, and could scarcely cry. It had frequent attacks of dyspnœa approaching to asphyxia, with blueness of the skin, showing some abnormal arrangement of the heart or blood-vessels. It died when six months old, from a congestion of the lungs, but I was unable to obtain a post-mortem examination; yet it was certainly affected with cyanosis. Now, is it not probable that the suffering of the invalid had some effect on the fœtus of the pregnant sister?

On the 24th of last January I delivered a young married woman of her first child, upon the back of which, under the left scapula, was a "mouse-mark," caused by the mother having been often frightened by mice which she saw in her room during her pregnancy. So impressed was she with the idea, that she informed her nurse several weeks previous to her labor that the child would be marked. This mark is of a darker hue than the natural skin, and on one spot of a mouse color; nor does it require any stretch of the imagination to see the resemblance to or outline of a sitting mouse.

In 1846, a Dr. Jackson, of Boston, saw an infant with an extensive blood-mark on

one of its upper extremities, and the mother stated to him that when two and a half months pregnant she saw a man who had been killed on a railroad, with his arm twisted, partly torn from his body, and covered with blood. She nearly fainted at the sight, and could not banish it from her mind. When her child was born, the discoloration of the skin extended from the back of the hand up the arm towards the shoulder and somewhat on the neck, so that she was obliged to keep the child's arm always covered with a sleeve to hide the deformity.

Dr. Parker, of Virginia, relates a case of a lady who, when three months pregnant, saw a negro boy drive a pig through an inclosure which tore its bowels out on a stake of a fence, the sight of which so horrified her that when her child was born it had the entire front of the abdomen covered only by a thin film and the intestines visible through it. The child died soon after its birth.

In 1852, Dr. Storer, of Boston, reported a case of "arrest of development attributed by the mother to a fright during pregnancy." Three or four weeks after her marriage she was much affected at seeing a hen injured by a stone, thrown by a boy, which broke one of its legs and removed the lower portion. She was much troubled at the time, and, as her pregnancy advanced, continually dwelt upon the subject, insisting that her child would be deformed. When the child was born it was perfectly well formed in every part, except upon one of the lower extremities there was simply a heel and the rudiments of the five toes, at the end of which were placed microscopic nails.

In the June number of the *Medical Examiner* for 1852 a case is related of a lady who was greatly distressed during her pregnancy by a strange and unearthly noise, made by a cub-bear, which was confined in an outbuilding of a lot adjoining her residence. She fancied the noise resembled that made by her lunatic brother, who had been under her special charge for several years previous, but now an inmate of an asylum. She often saw the animal, and thought its cries were occasioned by a want of food. Her mind was constantly dwelling on the subject, and she could not control her feelings. When her child was born, its arms, legs, and back resembled somewhat those of the animal, and were covered with fine hair of a dark brown color.

Many more instances might be brought forward if more attention was given to this subject, for cases occasionally occur in obstetric practice of which no record is kept, and the experience of many physicians would show that maternal impressions do sometimes affect the fœtus in the early months of utero-gestation.

1324 N. Fifteenth St.

A CLAIM OF PRIORITY.

IN the issue of the *Philadelphia Medical Times* of June 10 is a letter from the New York correspondent, reporting a recent meeting of the Academy of Medicine in that city, in which he announces, with some emphasis, the discovery of a new principle of treatment for lateral curvature of the spine. He considers it especially noteworthy that the same practical result should have been arrived at by two observers, following entirely different methods of study. The occasion was the reading of a paper by Dr. A. B. Judson on the "Cause of the Rotation in Lateral Curvature," which was followed by confirmatory remarks from Professor Sayre. Without desiring to derogate in the least from the merit of Dr. Judson's patient analysis and admirably clear demonstration of the forces at work in the causation of rotation, which I consider to be an original and important contribution to our knowledge of this somewhat obscure problem, I wish to call attention to the fact that the practical results arrived at by both these gentlemen were given to the profession by myself a number of years since. The *Medical Gazette* of New York, for June 4, 1870, contains an article entitled "Idiopathic Lateral Curvature of the Spine.—Hints in regard to its Early Diagnosis, with a Description of an Improved Instrument for its Treatment. By Benjamin Lee, M.D. (Illustrated)." It is further stated by way of explanation that this paper is "the substance" of two others, —one read before the Section on Surgery and Anatomy of the American Medical Association, at its session at Washington, May, 1870; the other, extracted from the Transactions of the Medical Society of the State of Pennsylvania for the year 1869. The latter of the two contained both the

theses for which I now claim priority of publication. I adopt the plan of placing my own text in juxtaposition with that of your correspondent, not with the slightest intention of making any suggestion of borrowing, either conscious or unconscious, on the part of the gentlemen referred to, for both of whom I entertain the friendliest regards, but simply to render the similarity of the propositions more apparent.

They may be succinctly stated as follows: 1. That a very slight deviation of the line of the spinous processes towards the side of permanent curvature indicates a much more considerable deviation of the bodies of the vertebræ, which has existed for a much greater length of time. 2. That in its earliest stage the distortion of the spine bears a close analogy to that of posterior curvature, and that (*a*) reasoning and (*b*) experience combine to teach that the mode of treatment which is successful in the latter is also applicable to the former.

Times Correspondent.

On this occasion Dr. Judson read an admirable paper on the cause of the rotation invariably seen in lateral curvature (except in those rare cases due to intra-thoracic disease), in which, after referring in turn to a variety of explanations which had been offered by distinguished surgeons, both in this country and in Europe, and finding them unsatisfactory, he showed, on apparently well-founded grounds, that the rotation was really due to the fact that the anterior portion of the vertebral column has very few and slight ligamentous and muscular attachments, while the posterior part is secured in the most firm manner by numerous muscles, ligaments, and aponeuroses, which ordinarily keep the spinous processes in the median line. Furthermore, he proved that when rotation takes place, the vertebræ revolve on a remote axis (to make use of a geometrical expression), so that when we find the spinous processes deflected, to however small an extent, either to one side or the other, we may be sure that the anterior portions of the bodies of the vertebræ will incline to a much greater degree to the same side, since this part moves in the arc of a circle considerably larger than the posterior.

Dr. Lee.

The distortions arising from these and similar numerous and widely-differing causes, occupy various regions of the column according to their own seat and mode of operation, more or less expressive of those causes and presenting varying phases of deformity. It is not, however, to any of these forms of curvature that I desire now briefly to call your attention, but to that recognized by German writers under the name *scoliosis habitualis*, signifying, not as might be claimed by some, a distortion dependent upon *habit* for its cause, but, the habitual or *usual* form of scoliosis, which appears to me to be a sufficiently distinct and independent affection to entitle it to the prefix *idiopathic*, in distinction from those deviations which evidently depend upon extraneous causes.

* * * * * *

If we accept Mr. Adams' position, that rotation does precede any lateral yielding of the column, what will be the first alteration in surface form to which it will give rise, and by which we may detect its existence, and hence the imminence of the later stages of the deformity? Regarding the spine from behind, we may say that the bodies rotate in the direction of the curve to which they correspond, that is to say, in the dorsal region to the right, and in the lumbar region to the left. Now supposing the upper surface of a vertebral body to be a circle, and the axis of rotation to be the centre of the circle, it is obvious that to the same extent that any point upon its anterior circumference was displaced toward the right, the opposite point on its posterior circumference would be displaced toward the left,—these points representing the extremities of a diameter. Farther it needs no demonstration to prove that if this diameter was projected beyond the circumference posteriorly, to a distance equal to its own length, the amount of displacement of its extremity would be materially increased.

The end of a spinous process occupies the position of the extremity of this prolonged diameter—supposing it to be the direct anterior-posterior diameter.

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Times Correspondent.

The practical conclusions, therefore, which Dr. Judson derived from his anatomical studies were, that lateral curvature is analogous to Pott's disease of the spine, for the reason that in both the anterior portions of the vertebræ are primarily and principally affected, and that it would be, therefore, philosophical to treat the former on the same principle which has proved so successful in the cure or relief of the latter, viz., the removal of all pressure from the anterior portion of the spinal column, and the throwing of the weight of the superincumbent parts of the body upon the posterior portion.

Dr. Sayre expressed his unqualified satisfaction at the lucid demonstration of the subject, which Dr. Judson

Dr. Lee.

The general belief has been that rotation came on rather late in the disease, and only as the result of long continued lateral deviation. This Mr. Adams has shown, by *post-mortem* demonstration, to be a complete error. So far from being a late consequent, his observations prove it to occur very early, probably invariably preceding the formation of the curvature. He considers it in fact the *initial distortion*. My own belief is that it *follows a posterior curvature*, which it subsequently serves to mask and sometimes to obliterate.

* * * * * *

The instrument which I make use of in the treatment of this affection, and which I now have the honor to present for the inspection of the Society, I have devised to meet the two special indications referred to, namely, the rotation of the vertebræ and the *early posterior curvature*.

* * * * * *

The three movements necessary to be employed to meet all the indications in a case of idiopathic lateral curvature may be stated as follows:

* * * * * *

3. An anterior-posterior movement in a perpendicular plane, directed against the apex of the posterior curve behind and against either extremity of that curve in front.

* * * * * *

This portion of the instrument is in all respects identical with the upright of Dr. Taylor's Angular Curvature Instrument, having its pad-plate hinged to admit of antero-posterior action.

* * * * * *

Inasmuch as the *apices* of the lateral and the posterior curvatures either actually or nearly coincide, the same mechanism which untwists the spine also erects it, thus accomplishing the third movement proposed, and overcoming the posterior curvature.

* * * * * *

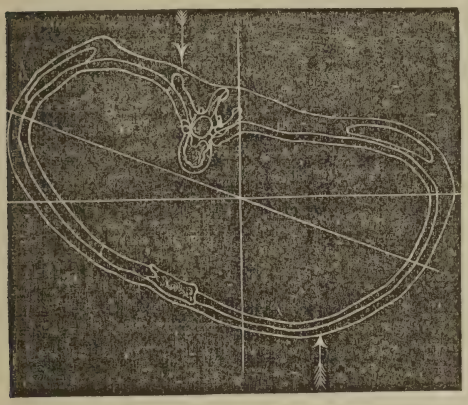
My experience inclines me to the belief that this last mentioned curve nearly always precedes the rotation, as that

Times Correspondent.

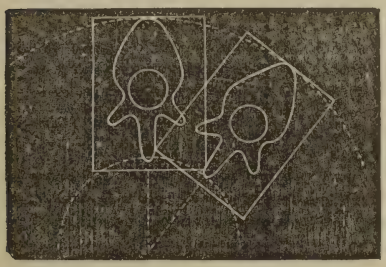
had given, and stated as a remarkable fact, that of late he had been treating patients with lateral curvature, exactly in accordance with the views expressed by the latter, because by experience he had found the method of benefit without understanding before precisely *why* it was so efficient.

Dr. Lee.

precedes the lateral curve, and that *simple antero-posterior support* in this early stage, coupled with appropriate exercises, would, in the vast majority of cases, avert the more serious distortion.



Dr. Lee's diagram illustrating the results of oblique rotation.



Dr. Judson's diagram illustrating "rotation on a remote axis."

It will be observed that both Dr. Judson and myself recognize the importance of the fact of the inequality of the axes in the process of rotation. The point of difference between us is that he throws the centre nearer to the spinous process, I nearer to the interior edge of the vertebral disk. It is very probable that his view is the more generally correct one, as he has made his study from a more strictly mathematical basis than I. I have read his paper (of which he was kind enough to hand me a copy) carefully, and, to say the least, am not prepared to controvert his position on this point. I go a step farther, however, than he does, and show that not only is the deflection of the bodies always greater than that of the extremities of the spinous processes, in the well-established curvature, but that, in consequence of the compound nature of the movement, it may at the outset coexist with either correctness in the line of these processes or its deviation in the opposite direction,—a point of very considerable value both in diagnosis and prognosis.

"Hence, as a result of this initial rotation to the right, we have the spinous process of this vertebra, or those of as many as participate in the movement, deviating from the perpendicular towards the left, thus forming temporarily a curvature to the left. How long this reverse curvature of the line of the spinous processes will continue, or indeed whether it will ever take place, will depend upon the promptness with which the sideward displacement of the bodies follows their axial rotation. That it is observed is undoubted, and its occurrence may serve as a partial explanation of the fact that parents, and even physicians, are often puzzled to determine at first in which direction the spine is curving, and are sometimes not a little surprised to see it finally taking the opposite direction to that which they had attributed to it. It is easy to suppose that before the fibres of the fibro-cartilage and other anatomical elements have become permanently and rigidly altered, the rotation may predominate on one day, and the lateral displacement another. If we conceive that the latter advances *pari passu* with the former, we shall readily perceive how a very considerable degree of both distortions, but especially of the former, could take place, and yet, the one exactly compensating the other, the line of the spinous processes continue exactly normal and vertical. It is apparent, then, that if we rest our diagnosis and prognosis upon the relation of these processes to the perpendicular, we may be leaning upon a bent if not a broken reed. The bodies may be already the seat of a considerable curve while yet these external indices give no sign of it."

I may add in conclusion that I had adopted this plan of treatment in the incipient stage of the affection some years before the publication of the above papers, and that I have continued to employ it with good results down to the present time. My experience of its practical value must therefore be admitted to antedate that of Dr. Sayre.

BENJAMIN LEE.

1503 SPRUCE STREET, PHILADELPHIA.

ON THE USE OF THE ATOMIZER IN DISEASES OF THE EYE.

BY M. LANDESBERG, M.D.,
Philadelphia.

THE method of applying to the eye, in certain diseases, medical agents in the form of a fine spray, has scarcely found entrance into ophthalmic practice. It is true that at different times several German and French physicians have made use of the atomizer in certain affections of the conjunctiva and cornea, and, according to their statements, with the best success. But until now this process has met with but little approval among oculists, either from cautious reserve or indifference on the part of practitioners.

Dr. A. Schenkl (at the instigation of Prof. v. Hasner, whose assistant he then was) made a number of experiments on the method of using the atomizer in the different external diseases of the eye, and published his results in the year 1871 in the *Prager Vierteljahrsschrift.*

The high praise which Schenkl bestows upon the use of the atomizer caused me to make some experiments, so as to form an idea of the value of this method from my own observation. My experiments extended over a period of five years, and their results (which I here communicate preliminarily) are based upon a long line of observations.

Dr. Schenkl has successfully applied the atomizer in the following diseases of the eye, viz. :

1. In simple conjunctival catarrh without complications.
2. In chronic blennorrhœa.
3. In pannus.
4. In opacities of the cornea from different causes.

The substances employed were sulphate of copper, laudanum, tannin, cuprum aluminatum.

My experiments were based upon two questions, viz. :

1. Is the atomizer at all admissible in ophthalmic practice, and, if so, in what diseases of the eye?
2. What advantages has the new process over the usual method of treatment?

The results are as follows, viz. :

The use of the atomizer in ophthalmic practice must be regarded as a real advance in the treatment of the diseases of the eye. This method offers several advantages which cannot be as safely attained by any other process. But it is not to be applied in all diseases of the eye in which it is recommended by Schenkl.

Absolutely injurious is its use in all inflammatory conditions of the mucous membrane of the eye, either in the form of conjunctival or granular catarrh, with or without complication of the cornea.

In trachomatous pannus the success is but moderate, and in all cases inferior to that attained by the treatment hitherto in use.

With respect to the genuine diseases of the cornea, the application of the atomizer must be emphatically condemned in all superficial diseases of the same during their development. But as soon as the inflammatory appearances have subsided, we have in the atomizer a valuable means to bring the disease to a rapid end and to facilitate the absorption of the opacities of the cornea.

In all recent opacities of the cornea, especially after burns and sloughing, there is no other means so well calculated to restore the transparency of the cornea as the use of the atomizer.

In the treatment of diffuse keratitis the atomizer has proved preferable to all other methods.

The period of the treatment was in my cases reduced to almost one-half the usual time, and the results were such as could not possibly be achieved by any other method. The earlier it is applied in diffuse keratitis, the more favorable will be the result. Even the presence of iritis does not contraindicate its use.

With it we achieve what we could not attain until now by any other treatment. We break the force of inflammation, further reparation, and accomplish an almost complete transparency of the cornea.

Whether in old opacities of the cornea the atomizer can be applied with any hope of success remains as yet an open question. The extremely favorable result in one case in which I tried it certainly encourages further experiments.

The substances experimented with are the following :

Cupri sulphas, with and without laudanum.
Simple laudanum, extract. opii.
Cuprum aluminatum.
Sodii chloratum.
Sodii carbonas and bicarbonas.

The best results were attained with extractum opii.

The apparatus used was Siegel's atomizer.

The length of time of each application varied from three to six minutes for each eye, according to the degree of irritation.

The reaction is considerable at first, but disappears very soon.

Bad effects I have never observed.

1338 Spruce St.

NOTES OF HOSPITAL PRACTICE.

PHILADELPHIA HOSPITAL.

AN INTERESTING GUNSHOT WOUND.

Reported by C. Winslow Dulles, M.D., Resident Physician.

R. B., æt. 21, white, oysterman, was shot in a bar-room quarrel near midnight, May 20, and brought in an ambulance to the Philadelphia Hospital within a few hours. About 3 A.M. he was examined carefully, and it was found that he had been struck in three places. One ball had made a simple contused wound of the coverings of the chest over the tenth rib, in the line of the anterior fold of the axilla, which did not require any special treatment. The second had entered the back of his hand about the middle, and, glancing round the heads of the second and first metacarpal bones, was imbedded over the trapezium. This ball was found with the probe, and when pushed could be felt deep down just above the "tabatière," between the tendons of the mm. primi and secundi internodii pollicis, while just over it the pulsations of an artery, probably the dorsalis pollicis, could be felt, and within an eighth of an inch to the ulnar side another, supposed to be the dorsalis indicis. On account of the relation of these vessels an incision was made on the radial side of the ball, and it was removed with some difficulty but no hemorrhage. It was of the size known as No. 22, conical, and its anterior end was cut and flattened. The third ball had penetrated the lower lip from below upward, at a point opposite the second incisor tooth of the left side, had struck and broken off the upper second incisor of that side, then glanced down through the tongue from before backward, and from left to right, and entered and buried itself in the floor of the mouth near the last right lower molar. Further than this its course could not be followed with the probe, but the patient complained of great pain on pressure over a point about a half-inch below and in front of the angle of the right inferior maxilla, from which it was thought that the ball had lodged there. Owing to the delicate anatomical neighborhood, it was not thought well to push the probing too far, and so nothing was done towards extracting the ball.

The hand was dressed with lead-water and laudanum and put on a straight splint. To the neck an ice-bag was applied, and pieces of broken ice given to the patient to be dissolved in his mouth. An enema was administered, bringing away a large quantity of scybalous masses. His diet was made solely milk and beef-tea, as he had much difficulty in swallowing. The next morning he was easier, and continued so all day and night.

May 22.—Another enema was given. The swelling of the neck seemed less, and the pain undoubtedly was. The hand was doing well. This continued all day and during the night.

May 23.—He still does well; has no pain in the hand and little in the neck. Little heat, and swelling less general. He can swallow and articulate much better.

May 24.—He was so much better that the splint was removed from the hand, and treatment confined to cold applications to his neck.

May 26.—Improvement has continued, and he seems virtually well. The wound of entrance and that of excision in his hand have healed by first intention. The ball cannot be found in his neck. All swelling is gone, and we are inclined to think the ball has worked into his mouth and been swallowed. A few days later he was discharged quite well.

TRANSLATIONS.

The Extirpation of Large Fibromyomata of the Uterus by Laparotomy, particularly by Supra-vaginal Amputation of the Uterus (*Centralbl. f. Med.*, No. 25, 1876; from *Berlin. Klin. Wochens.*, 1876, Nos. 12–14).—Hegar gives two cases of successful operation. The first was that of a pregnant woman, on the surface of whose uterus a myoma was situated. Artificial

labor was induced at the sixth month. Five weeks later, laparotomy was performed. The myoma when taken away by the écraseur was found to have a large stalk, and to be accompanied by many small fibroids within the uterus. For this reason the organ itself was, after the application of a double ligature, taken away by the same means, the stump being fixed in the aperture of the abdominal wound. After several accidents from sloughing of the wounded surfaces, etc., the cure was effected by the end of the fourth week.

In Hegar's second case, a rapidly growing intra-parietal myoma was extirpated with much hemorrhage. The myoma left only a small portion of the cervix free; the remaining stump was therefore very short, and could not be fixed in the abdominal wound. The tumor when removed was found to weigh four kilogrammes.

H. advises that the abdominal wound shall be made sufficiently large, so that the tumor, after turning upon its axis, may be withdrawn without being made smaller. If this cannot be accomplished, he advises that it be taken out piecemeal. The original communication contains full details of the procedure. x.

Certain Effects of the Ethereal Oils (*Centralbl. f. Med.*, 1876, No. 25; from *Arch. Exp. Path., etc.*, v., p. 109).—Binz gives the collective results of various experiments of several of his pupils. Among these the research of H. Meyer, on the influence of certain ethereal oils upon the number of colorless cells in the circulation, is new. Oils of turpentine, camphor, cymol, valerian, cinnamon, and fennel, taken internally in doses of five to fifteen drops, the camphor to .25 grm., increase the number of white corpuscles to double the previous amount in ten to thirty minutes. In some two hours, however, the effect passes off again.

The effect is probably local, from the stomach, since ethereal oil injected subcutaneously into the arm does not produce a similar effect. Oil of capsicum in the above form and dose does not increase the white corpuscles in the least. It is only the ethereal oil which gives a sensation of cold in the mouth, together with contraction of the vessels. Spirits of wine (15 cm.) is without the effect above mentioned, as also several ethereal oily tinctures and drugs, and also ether and acetic ether. The author refers the effect to a transitory hyperæmia of the lymphatic glands of the abdomen, and particularly of the spleen. x.

Anatomical Characters of the Blood in Anæmia.—M. G. Hayern read a paper on this subject before the Académie des Sciences recently, the results of which are published in the *Bull. Gén. de Thérap.*, 1876, v. 2, p. 130. They are as follows: In all cases of chronic anæmia the mean dimension of the globules is always below the normal. In general, these altered globules show more or less irregularity of contour, pointing to a loss of consistency. Besides these changes, the red globules in anæmia often show diminution in color, rarely affecting all the globules, but only those which are deformed. As regards the number of globules, this, in the normal state of health, may be estimated at about five to six millions to the cubic centimetre of blood; in feeble health about four millions six hundred thousand. In the majority of cases of anæmia the blood contains a smaller than normal proportion of red globules. In one case of paludal anæmia the proportion fell as low as one million one hundred and eighty-three thousand seven hundred and fifty to the cubic centimetre, and in a case of purpura hæmorrhagica to one million. In anæmia of moderate intensity, however, the proportion of red globules is often equal to or above the normal. While in a state of health, even in feeble persons, the coloring power of the blood is proportionate to the number of red globules, in chronic anæmia a lack of proportion is constantly observed between the number of these coloring elements and the coloring power of the blood; that is to say, that the coloring power of the blood is always inferior, in a greater or less degree, to that which an equal number of normal globules would give to the blood. The disproportion between the number of globules and their coloring power is greatest in mild anæmia, where, as has been said, the proportion of globules is not diminished. In profound anæmia, accompanied by very marked diminution in the number of red globules, this fact is not so noticeable. x.

A New Antiseptic.—E. Hermant (*Centralblatt für Chirurgie*, 1876, p. 528; from *Arch. Méd. Belges*, 1876, B. 6, pp. 407–415) uses a mixture of spirits of camphor and solution of hypochlorate of calcium, which, when gradually mixed, retains the greater portion of camphor in solution.

In gangrenous wounds this solution acts more favorably in favoring decomposition without profuse suppuration. x.

Treatment of Acute Articular Rheumatism by Cyanide of Zinc (*Bull. Gén. de Thérap.*, 1876, v. 2, p. 140).—This remedy was suggested by Luten, of Rheims, some time since. Lately, Deschamps has used it with success, and recommends it highly. He employs the following formula:

Zinci cyanid., gr. $\frac{1}{12}$;
Pulv. acaciæ,
Sacch. lactis, āā q. s.—M.
Ft. in pil. j.

To be taken to the number of ten in twenty-four hours. x.

Resection of the Median and Ulnar Nerves.—Braun (*Centralblatt für Chirurgie*, 1876, p. 536; from *Deutsche Zeitschrift für Prakt. Med.*, No. 25) gives the following case. A laborer, 20 years of age, cut himself in the left arm; the wound healed, but the fingers remained useless. Ten months after the accident he came under observation. There was a scar in the upper third of the arm, within the biceps; under this several painful nodules the size of cherry-stones could be felt. The hand was cold, and covered with thin, smooth, brownish-red skin. The nails were thick, crumpled, split, and furrowed. The interosseus muscles and both balls were atrophied; the symptoms, in a word, showed division of the ulnar and median nerves. There was no hope excepting from operative interference.

By the aid of Esmarch's apparatus, and under carbolic-acid spray, the central ends of the divided nerves were laid bare and resected. The peripheral ends were found with difficulty, since they had become retracted nearly an inch, and were somewhat deflected from their normal position. They were freshened and joined to the central extremities by fine sutures, and, the wound being closed, were kept in position by a right-angled splint. There was severe pain in the wound for two days; it closed after profuse suppuration at the end of a month, at which time the nerve-sutures, with one exception, remained fixed. The sensory and motor paralysis continued, but electric stimulus aroused slight movements in the muscles. Six weeks after the operation, the sutures and splint were removed. Six months after the operation, some movement was restored to the hand. Eighteen months after the resection, the condition of the limb was as follows. The forearm was much stronger; the skin was thicker, warmer, and not so shining; the nails were less thick and crumpled. The activity of the flexors and pronators of the hand had become almost entirely re-established, while the movements of the ball of the thumb and that of the little finger were still imperfectly performed. Feeling had returned, with the exception of occasional imperfect localization. Irritation of the nerves above the sutures aroused energetic contraction; below the sutures, none: that is to say, conduction had returned, but not irritability of the peripheral end. The patient was able to perform his work once more perfectly well.

Braun also alludes to another case of Langenbeck's, where resection was performed after two years. It is the late performance of the operation which gives these cases interest; cases of resection of recently-separated nerves are not rare. x.

Intestinal Obstruction—Employment of the Induced Current—Cure.—M. Giommi (*Centralbl. f. Med.*, 1876, p. 535; from *Raccoglitore Med.*) observed the case of a stout, healthy man, 51 years of age, who had suffered some weeks from total obstruction of the bowels. The patient was almost in a state of exhaustion. With the idea that atony of the intestinal walls was at the bottom of the trouble, G. employed a strong induced current, one electrode being placed in the rectum, the other upon the abdomen in the neighborhood of the transverse colon. The application was made several times daily, from ten to fifteen minutes at each sitting. The result was surprising. After the escape of gas in large quantity, copious stools followed, and the patient was discharged cured within a few days. x.

Poisonous Properties of Glycerin (Beaumetz: *Le Mouvement Médical*, 1876, No. 34).—Chemically pure glycerin when introduced beneath the skin of dogs in quantities of 8 to 10 grains to the kilogramme of the bodily weight of the animal gave rise to fatal poisoning. The symptoms during life and the appearances found after death were similar to those met with in acute alcoholism. B. gives a caution in regard to the thoughtless administration of large doses of glycerin for therapeutic purposes. w. a.

MEDICAL TIMES.

PHILADELPHIA, NOVEMBER 25, 1876.

EDITORIAL.

THE MAD DOCTORS OF AMERICA.

MOST of our readers will remember the scurrilous attack made by the London *Lancet* upon what it was pleased to call the "mad doctors" of America, and some may have read the "Notes on American Asylums," which it drew forth from the pen of Dr. Bucknill. More recently the *Lancet* has renewed its onslaught, although, perhaps, with less unfairness and, we had almost said, vulgarity than before. Those of our readers who are as well acquainted as is the writer of the present article with our Philadelphia City Lunatic Asylum, and have read the reports of various commissions upon the practices of outlying districts and communities, must feel that there is much in the treatment of the insane in the United States that calls for reform. For the wretchedness, the over-crowding, the improper care or neglect which exists in certain places, the doctors, however, are not to be blamed. In most cases they have done all they could to effect change. The evils are often the necessary fruits of the ignorance and comparative poverty of new communities, heightened, in the present instance, by those faults of our governmental system which have made politics a by-word of reproach amongst us, and which would assuredly destroy our present nationality were it not that public opinion and a free ballot will of a certainty continue the political reforms already commenced. Moreover, the abuses that exist are local. In every portion of the country, but especially in the older parts, are numerous well-managed institutions. It is for these only that the American alienists should be held responsible.

We do not claim for them perfection, but certainly, in spite of defects, they are on the whole just subjects of pride. We think that in some instances there is danger of the medical chief becoming a mere executive officer. Moreover, we are inclined to agree with the alienists of Great Britain in the superiority of the non-restraint method; but assuredly this is still a matter of such doubt as to be fairly a subject for honest difference of opinion, and to entirely prevent any person who respects his own moral character from lampooning or vilifying those who do not agree with him. The sweeping general charges of the *Lancet* were so grossly untrue that they must have been based upon unscrupulous malice or equally culpable wantonness or ignorance.

It is therefore with much pleasure that we see that Dr. Bucknill brought the matter before the Medico-Psychological Association of England, at its annual meeting this summer. His resolutions were considerably discussed, but the modifications made of them were simply meant to intensify the condemnation of the course the *Lancet* has indulged in. It was very freely hinted that the *Lancet* in its attacks upon Dr. Nichols, of Washington, had so gone beyond the line of propriety that if Dr. Nichols were an Englishman it would in all probability have to pay a heavy penalty for libel. The resolution finally adopted by a unanimous vote of the Association was as follows:

"That this Association, while reserving its opinion on the general question of the treatment of the insane of America, and on matters which are under inquiry, desires to express its esteem for the medical men engaged in the treatment of the insane in the United States, and its sympathy with those who have been made the subjects of unfounded imputations and accusations, either in the United States or in this country."

DR. GRAINGER STEWART has been elected to the Chair of Medicine in the University of Edinburgh, formerly held by the late Prof. Hughes Bennett.

EXSECTION OF THE PANCREAS.

IN the *American Medical Weekly* for November 11 is reported a case of Western surgery which we believe stands unrivalled, although Dr. Justin, who operated, must share the credit not only with Dr. B. B. Allen, of Sebastopol, California, who attended to and reports the case, but also with the unknown individual who handled the knife so skilfully, and with the mule-like obstinacy of the constitution of the patient operated upon. The case was that of an Indian who was stabbed in a number of places, from one of which the pancreas had protruded twelve hours before the arrival of the physician. As this protruded part was gangrenous, the remaining seven inches were exsected. The report of the case was made twenty-one days after operation; at which time the ligatures had come away and the wounds completely cicatrized, the patient being to all observation well.

DR. JOLLIFFE TUFFNELL has written a very practical letter to *The Medical Press and Circular* concerning his trip to this country, which we trust may lead some of his confrères to visit us in the future. Dr. Tuffnell found only one source of melancholy,—namely, the dearness and badness of the wine and cigars in this country,—but thinks it worth while to defy this source of misery for the other good things to be seen and tasted of.

IT seems that the gates of the medical road to fame have not been so widely thrown open to the softer sex in the British kingdom as was believed. Recently six ladies who applied for permission to be admitted as students to the Queen's College, Galway, were refused by the Council.

THE medical classes in this city are a little larger than those of last year.

CORRESPONDENCE.

NEW YORK, November 11, 1876.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR,—At the meeting of the Medical Journal Association, October 20, Dr. George M. Schweig read a paper on the "*Use of Electric Baths in Cerebral Exhaustion*," in which he stated that he had found them more efficacious than any other plan of treatment which he has tried. The first essential, however, in this, as in all other modes of treatment, he believed to be perfect rest on the part of the patient. If he should continue to pursue his usual avocations, he would receive no benefit whatever from his physician; and the writer said that he had never succeeded in relieving a single case where this course was persisted in. Both currents might, of course, be used in the baths, but he was in the habit of relying mainly on the galvanic, as he did not regard the faradic of much service, except in cases where there were evidences of paresis, in which it was of decided benefit. The length of the bath should at first be ten or fifteen minutes, but should afterwards be extended to twenty-five or thirty minutes. At first the patient ought not to take one oftener than every second day, though after a time he may take one daily with benefit. As the case progresses towards recovery, it is not necessary to give the baths so frequently, and the length of time intervening between them can be gradually extended, until they are finally discontinued altogether. As a rule, the first evidences of improvement in the patient are noticed in about three weeks after the treatment has been commenced. The only remedies (except the bromides, in appropriate cases) which the writer has found of service, in addition to the electric baths, are cod-liver oil and phosphorus, the latter being given either pure or in the form of phosphide of zinc. The electric bath has proved an excellent hypnotic in his hands, and in one or two instances of delirium tremens he has succeeded in producing sleep by this means when all the ordinary remedies had failed.

The Putnams are about publishing a book by Dr. Schweig on the uses of the electric bath, and its mode of application.

At the meeting of the Association, October 27, a paper, by Dr. M. A. Wilson, on "*Cerebral Embolism*," was read. As this paper was devoted almost exclusively to the narration of the case of a patient who was a near relative of its author, and it would have been no slight trial to him to read it in public, this was done by the Secretary, Dr. Robert W. Taylor. The full title of the case would be, Mitral Stenosis; Cerebral Embolism; Left Hemiplegia; Death. The patient was a young lady, twenty years of age, who was subject to no hereditary disease, and had always en-

joyed good health, with the exception of an attack of acute articular rheumatism when she was eleven, and one of pleurisy five years ago. No disease of the heart, as a consequence of the rheumatism, was detected until within a year of her death, which occurred February 22, 1875, and no bad effects were left by the pleurisy. A few months before her death it was found that her heart was considerably hypertrophied, and that there was a presystolic murmur at the apex, indicating mitral stenosis with regurgitation. There was also an aortic murmur, but this was attributed to anæmia by the physicians in attendance. At this time she suffered considerably from dyspnœa on exertion, and other symptoms of cardiac trouble; but these all entirely disappeared after she had been put upon strong tonics and the most nourishing diet for a time.

In October, 1874, while making a visit at a friend's, she suddenly lost all power over herself and dropped to the floor, at the same time experiencing a violent pain in the right temporal region. She did not, however, lose consciousness. As soon as medical aid could be summoned, it was ascertained that there was some degree of facial paralysis, and complete hemiplegia of the left side. There was slight mental hebetude also; but this, together with the facial paralysis, entirely disappeared within twenty-four hours. Just after the attack there was great difficulty of speech, and this seemed to impress the patient so ludicrously that she made an attempt to laugh, but, finding this impossible, she gave vent to a violent burst of tears. At this time she could not protrude the tongue beyond the lips. After a few days, she was removed to her own home, and a number of eminent physicians called in counsel. Strychnine was administered hypodermically, and the tonics and nourishing food kept up. Electricity, in the form of the faradic current, was tried for a time, and afterwards, by the advice of Dr. A. D. Rockwell, central galvanization was employed. Then for the first time was any power perceptible in the affected side, and after a short time she was able to walk with assistance. The faradic current was now applied daily, and galvanization every second day; while the strychnine, together with iron and other tonics, was still continued. During the course of her illness she suffered considerable pain in different parts of the body at various periods. For a time this was confined to the region of the spleen, and afterwards was experienced in her right wrist. The latter was followed by a feeling of numbness, and there was no pulse at the right radial artery at the time. The day after this was noted, all these symptoms disappeared, and the pulse was then precisely alike at both wrists. She suffered more or less from vesical irritation, with *ardor urinæ*, and constipation was almost constant.

One day, about three weeks before her death, Dr. Wilson, on entering her apartment, found her standing at the wash-stand, to which she was holding on with a firm grasp, while her body swayed backward and forward like that of an intoxicated person, and her eyes were fixed in a vacant stare. He at once lifted her on to the bed, when she burst into tears, and, on regaining her composure, told him that she had become entirely unconscious while standing at the wash-stand. From this period he was of the opinion that she was never the same intellectually as before, her actions seeming to him to indicate that softening of the brain had set in. Those not so familiar with her, however, did not notice much difference in her. There was now more or less general muscular twitching, with tonic spasm of the muscles of the calf, and, as the strychnine had lately been pushed to a considerable extent, these were attributed to it. The dose was consequently diminished, but, the phenomena continuing, it was stopped altogether. Even this had no effect upon the muscular twitching and spasm, and Dr. Wilson believed them to be really due to cerebral irritation. About this time she had an attack of violent pain in the left temporal region, and the mouth was strongly drawn towards the same side,—the first facial paralysis that had been noted since the day of the commencement of her illness in October. On the 20th of February, while standing in the centre of the room, she was noticed by a little niece, who was with her, to be on the point of falling, and was with difficulty assisted to the bed. She appeared to be suffering from pain in the head, and vomited once upon reaching the bed. The lower jaw was jerked violently open, and remained for some time in that position, notwithstanding all her efforts to close it; but afterwards the teeth were shut tightly on the end of the tongue. The heart's action was greatly excited, and the pulse and respiration quickened. There were now violent clonic convulsions, followed by strong tonic spasms of all the muscles. The pupils were but slightly affected, the eyes appearing natural, but intensely anxious in expression. Voluntary deglutition was destroyed, but the patient swallowed involuntarily when there was an accumulation of mucus in the fauces. The next day there was a change in the respiration, which became jerky in character. There was a long inspiration and two efforts at expiration, the first one being the shorter. Coma gradually set in, and she died February 22, at 3 A.M.

The autopsy was held thirty-six hours after death, only the brain being examined. A firm clot was found in the middle cerebral artery of the right side, and the corpus striatum of that side was almost completely broken down. All the rest of the brain was normal, as far as could be made out. It was

thought from the symptoms, by some of the medical men in attendance, that apoplexy had occurred at the last; but no evidence whatever was found of it.

Among the points of this unusually interesting case to which the writer called attention were the following:

There was no loss of consciousness when the embolism occurred. As it has been definitely ascertained that this sometimes results in these cases and sometimes does not, its occurrence or absence is no longer regarded of any diagnostic value.

The emotional phenomena accompanying the attack.

The pain in the right temporal region at the time the embolism occurred.

The occurrence of other embolisms, in the right radial artery, and probably also in the spleen and in the left middle cerebral artery.

The occurrence of softening and of muscular twitching and spasm as a result of it.

Death preceded by clonic convulsions, followed by tonic spasm and coma.

The futility of all treatment. Such cases must inevitably prove fatal, as when these cerebral arteries, which have no anastomoses, become obstructed by embolisms, no collateral circulation can be established.

At the meeting of the Academy of Medicine, October 19, Dr. James R. Leaming read a paper on "*Some Practical Considerations of Consumption*," in which he called special attention to the differences, both clinical and pathological, between tubercular and fibrinous phthisis, which are both known, unfortunately, under the common name of consumption, and are too often confounded with each other by the mass of the profession. In the same way, he said, typhus and typhoid fevers had been formerly considered identical; but they were not more distinct diseases than these two forms of consumption. He believed that tubercle, as such, never had a very long existence in the system. If it does not become absorbed in a comparatively short time, it begins to undergo degeneration, and this process, which may be either rapid or slow, produces the most injurious effects upon the system. It is remarkable, said he, how rarely we find tubercle itself at autopsies, though the evidences of its having been originally present are often sufficiently abundant. It is sometimes no easy matter to make the diagnosis of acute tuberculosis, and it is probable that many cases of it occur in which there is complete recovery, the affection having been mistaken for typhoid, intermittent, or simple continued fever, or some other disease. Many of the cases which end fatally also show how liable we are to make an incorrect diagnosis in this condition. The essential element of the fibrinous form of consumption consists in the bands of organized tissue, which result from plastic exudation in the pleuræ, and which may extend into the lung itself, impeding the free movements and interfering with the functions of the organ. In the diagnosis the danger is that the case will be mistaken for one of bronchitis; and this very frequently occurs. In the early stages the physician is thus likely to underrate the seriousness of the disease, while in the more advanced stages he will probably mistake it for tubercular consumption, and thus overestimate the danger. A newly-formed exudation, if not absorbed pretty soon, becomes organized, thus interfering with the action of the lung, and rendering the patient liable to continual fresh attacks of the same nature. It is, therefore, of the greatest importance that a correct diagnosis should be made early, as the affection, when taken in time, yields promptly to appropriate treatment; while if the case is allowed to run on, the lungs may become fatally damaged. Tuberculous may, of course, be associated with fibrinous disease of the lungs. Tubercle, as a rule, is produced by some irritation, more or less continued, in the system; and if plastic exudations are not absorbed, they may easily lead to its formation in those predisposed to it.

In regard to treatment, besides the most careful attention to the general hygienic condition of the patient, Dr. Leaming stated that he relied principally upon mercury and muriate of ammonia. It was often well to commence with the former, which should be given in full doses, and afterwards put the patient on the ammonia, which, in order to have the desired effect, should be given to the extent of five to ten grains every waking hour.

He quoted three cases of phthisis cured by salivation by Dr. Benjamin Rush, at the Pennsylvania Hospital, in the early part of this century, and said that he had no doubt that they were of the fibrinous variety. He himself had cured a number of cases of asthma by the free use of mercury. They were cases in which there were fibrous adhesions; but where the affection was of a nervous character, this remedy always failed. Counter-irritation by blisters, iodine, the application of heat and cold, porous plasters, etc., was also recommended.

At the last meeting of the Academy, Dr. Stephen Smith read the history of *thirty-five successive amputations* successfully performed one hundred years ago.

Dr. Hammond, at a meeting of the Neurological Society, November 6, read a paper on "*Hysterical Contractions*." There was scarcely a muscle or group of muscles in the body, he said, which may not be the subject of hysterical contraction; and though this fact has long been known, semblance to organic disease is often so perfect that physicians are still liable to be deceived by the counterfeits. He then related about a dozen cases which had occurred in his own practice, dividing them into three classes: those in which the muscles of the head and trunk, those in

which the muscles of the upper extremity, and those in which the muscles of the lower extremity were affected. All of these cases recovered, either spontaneously or as the result of treatment. In those of the first class, the sterno-cleido-mastoid was the muscle principally involved. There was one very curious case, in which, after faithfully but fruitlessly employing electricity, the bromides, and the hypodermic injection of atropia, as recommended by Da Costa for wry-neck, he made a section of the sterno-cleido-mastoid; when, almost immediately, the same muscle on the other side of the neck became similarly affected, drawing the head in the opposite direction. This had to be cut also, and then followed a number of continued tonic contractions of various muscles of the upper part of the body, so that quite a series of myotomies and tenotomies had to be performed. Finally the case was given up as entirely beyond the power of either medicine or surgery to relieve; and about two years after that date the patient became cured spontaneously. In most of the cases the contractions came on very suddenly, in one instance resulting instantaneously from alarm in consequence of the cry of fire. Of the muscles of the upper extremity, the biceps was most likely to be attacked, and after that the flexors of the fingers. Where the latter are affected, Dr. Hammond is in the habit of applying the galvanic current to the flexors, and the faradic to the opposing extensors. The lower extremities, he thought, were more frequently the seat of these contractions than any other part of the body, and the muscles most apt to be affected are those which act in flexing the leg upon the thigh. The gastrocnemius and the soleus suffer notably from these contractions, and the heels are not unfrequently drawn up to such an extent as to cause a deformity closely resembling talipes equinus. Sometimes the limbs are so violently flexed that the heels are buried in the buttocks. Dr. Hammond then went on to speak of hysterical affections of the joints, to which attention has been called by Sir Benjamin Brodie and others. The cases which he had described he said were called hysterical, simply because there seemed to be a hysterical element entering into them, and for want of a better name. In all, he was inclined to think, there was probably a central lesion of greater or less seriousness. The idea that the eccentric irritation was primary and resulted in a secondary centric lesion, although entertained by no less an authority than Duchenne, he considered quite untenable.

In the treatment he relied mainly upon the bromides (especially those of zinc and sodium), on account of the effect which they seem to have, when given in full doses, of causing relaxation of the contracted muscles; but he had also found electricity, tonics, etc., of benefit. In view of the history of several of the cases, however, in which spontaneous recovery unexpectedly took place, he was not disposed to attach too great value to any therapeutic measures which had been hitherto employed. In one case in which there was twitching of other muscles than those affected by contractions he had given ergot, as he believed that a certain amount of spinal hyperæmia was thus shown to exist.

Dr. M. A. Pallin criticised Dr. Hammond's cases on the ground that they were inadequately described. It was a significant fact that in all but one of them the patients were females, and yet not a word had been said of the menstrual life or the condition of the sexual organs in any one of them. He was one of the few, he said, who believed that all hysteria, properly so called, was really due to some source of irritation in the ovario-uterine tract in the female and the genitals in the male, and in cases of the disorder he had rarely or never failed to detect the presence of such a cause. He thought, therefore, that hysteria was no more a disease than dropsy, and that whenever a case presented itself which was characterized by hysterical symptoms, we should seek to discover their ultimate origin, and, instead of calling it merely a case of hysteria, assign to it some definite term in accordance with the pathological condition found to exist. He then described a very marked case of hysterical contraction, where the patient had been undergoing all sorts of treatment before she was brought to him. The patient was a young woman who had been unable to walk for some time, and whose heels were drawn tightly up against her buttocks. No one, it seems, had ever thought of making a vaginal examination; and as soon as he did this, Dr. Pallin discovered that one of the ovaries was entirely out of place and intensely painful to the touch. When any pressure was made upon it, not only did it induce increased tonic spasm of the muscles, but also brought on an attack of hystero-epilepsy. He consequently advised and strongly urged the removal of the ovary; but this was not agreed to by the other gentlemen in consultation, and the patient died about a year afterwards of marasmus. He was of the opinion that could the offending organ have been extirpated, the constant and excessive strain upon the nervous system would have been removed, and the patient would probably have made a good recovery.

Dr. L. A. Sayre agreed with Dr. Pallin that in this class of cases there is always a definite cause which we can usually find out if we search properly for it. He then related a very remarkable case which had recently come under his notice. The patient was a little boy of five years of age, who seemed to be entirely idiotic, could not speak articulately, and was suffering to such an extent from internal strabismus that it made him blind. He was entirely unable to walk, and any effort to

do so was accompanied by such contortions of the body and extraordinary movements of both the upper and lower extremities as it was impossible to describe. As in so many previous cases of this want of co-ordinating power in children, he found that the boy suffered from constant priapism. The prepuce was tightly adherent, and any irritation applied at the glans penis produced instantaneous spasm of the whole system, but most notably of the lower extremities. Under these circumstances, he at once decided to perform circumcision; and this little operation was followed by the most extraordinary results. The strabismus quickly disappeared, and the child was able to see perfectly; while he was also soon able to walk in a perfectly natural and easy manner. The very next day he began to talk fluently, and, what is very remarkable, instead of his being idiotic, as had always been supposed, it was found that his intellectual powers were very fully developed for his age; showing that he had previously lacked only the power of expression. It seemed indeed like a complete emancipation of his whole being from some power of darkness that held it in the most abject captivity; and after the operation the child's relatives could scarcely recognize in him the blind and helpless little idiot whom they had been accustomed to see.

At the last meeting of the Public Health Association, November 9, Colonel W. P. Prentice, its chairman, made an interesting report on behalf of the Standing Committee on Public Sanitary Administration, in regard to a variety of subjects.

The first was the laws providing for the registration of births, marriages, and deaths. It is proposed during the coming session of the Legislature to have such amendments to the present laws enacted that this registration will be much more accurate and complete in every respect than it has hitherto been.

The second was the proposed law for the abatement of suburban nuisances felt principally in cities. This measure was brought up at the last session of the Legislature, but, owing to the late period at which it was done, it failed to pass. Although it had its origin in this city, it is designed to protect equally all the towns of the State, and it is earnestly hoped that it will be passed during the coming winter. For a long time past the citizens of New York, and especially those living on the east side of town, have been suffering from the disgusting stench, as well as unwholesome vapors, arising from the coal-oil refineries and the manufactories where their refuse material is converted into fertilizing agents, which are situated just across East River on the Long Island shore. The New York Board of Health is powerless to abate this intolerable nuisance, and all appeals to the Brooklyn board have been unavailing. The owners of these manufactories are wealthy, and backed by considerable political influence, which it will require no small effort to overcome in the Legislature; and the Association has therefore decided to call a public meeting, when the whole subject will be thoroughly ventilated.

The third topic treated in the report was the practical tests for the prevention of food-adulteration. In this respect the agents of the Board of Health have accomplished an excellent work, and particularly in the prosecution of venders of adulterated milk. In their hands the lactometer has answered admirably for all practical purposes, though in doubtful cases the microscope has also been called into requisition to determine the character of specimens of suspected milk.

The fourth and last was the economical and efficient inspection and reform of minor nuisances, and the necessary sanitary work of the police under the law. In this connection the committee regretted very much the action of the Board of Police in disbanding the "Sanitary Squad," which had formerly been of essential service to the health authorities.

On this occasion the Centennial Exhibition Commission of the Association, Mr. C. J. Moore, Chairman, also made their report. They had found the display of the appliances of sanitary science exceedingly meagre, and when they inquired of General Hawley why this was so, he replied that it was because no special effort had been made to have the subject represented, and that such societies as the Public Health Association ought to have applied regularly for a space, like other exhibitors, where they could have made a creditable display. The committee expressed the hope that the matter would not be neglected to such an extent in the Paris Exhibition of 1878, and urged the Association to take some action in regard to its representation there.

In this city at present a water-famine seems more imminent than at any time since the Croton water-works were originally established. For more than a month no water has been obtainable above the first floor of the houses over a very large portion of the city, and the trouble seems to have steadily grown worse until a day or two since. Chief Engineer Campbell now announces that the water in the Croton dam has risen twenty-four and one-half inches (representing an increase of two hundred and fifty thousand gallons), and in the reservoirs in Central Park sixteen and one-half inches. This is attributed in part to the recent showers, and in part to the increased care on the part of citizens to prevent waste.

During the past week we have had the novel sensation of a female pedestrian contest here. The competitors are a young American and a young German woman, and five hundred dollars is to be awarded to the one who succeeds in walking the largest number of miles in six days. On the first day of the match the fräulein accomplished the remarkable feat of

walking fifty miles in a little over twelve hours, with but one rest of ten minutes.

The election of officers at the County Medical Society resulted as follows: President, John C. Peters; Vice-President, Isaac E. Taylor; Recording Secretary, Frederick A. Castle; Corresponding Secretary, A. E. M. Purdy; Treasurer, H. P. Farnham.

T. G. Thomas has been elected President, and J. Foster Jenkins, of Yonkers, Vice-President of the Obstetrical Society.

The profession has lately been called to mourn the loss by death of Dr. Julius Theband, a very accomplished and popular practitioner of this city. While preparing for a day's shooting, a cartridge exploded in his hand, and the copper penetrated both the lung and pericardium. He lingered in great suffering for nearly a week after the occurrence of the accident. PERTINAX.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, OCT. 12, 1876.

THE PRESIDENT, DR. WILLIAM PEPPER, in the chair.

Specimens (fœtal envelope, uterus, and ovaries) illustrating a case of extra-uterine pregnancy. By FREDERICK P. HENRY, M.D.

MY principal object in presenting these specimens is to obtain the opinion of the Society as to the nature of the fœtation which they represent.

I reserve the full clinical history, which would be here out of place, for future publication, merely stating that the gestation proceeded to full term, that the diagnosis was accurately determined before death, and that the question of operation, after consultation with Dr. Goodell, was decided in the negative.

The specimens consist of the fœtal envelope, to the inner surface of which the placenta is adherent, the uterus, and the ovaries. It will be observed that the sac is attached to the right ovary, and perhaps also to the fimbriated extremity of the corresponding Fallopian tube, and upon the nature of this attachment turns the question between external ovarian or ovo-abdominal, tubo-ovarian, and abdominal pregnancy. If the connection is organized, the case is to be classified under one of the two former species; if simply inflammatory, under the latter.

That it is no easy matter to determine the exact nature of an extra-uterine pregnancy is forcibly stated in the following quotation from the admirable work upon this subject by the late Dr. Parry: "It should be borne in mind that, at the autopsy of a woman who has carried an extra-uterine child to or near term, it is often extremely difficult, nay, more, it is absolutely impossible, to determine the true seat of the pregnancy. Pressure and the other forces brought into operation by the ovum during its growth so change the relations and even the structure of the organs that it is impossible to determine the original seat of the ovum. The uterine appendages are frequently found so thinned and atrophied that their recognition is difficult or even impossible. This fact should be borne in mind, so that those who put their observations upon record may so accurately record the facts, that data may be gradually accumulated that will aid us in determining the comparative frequency of the species of misplaced gestations."

Whatever may be the nature of the fœtation, a very interesting pathological question is that concerning the existence of muscular fibres in the adventitious uterus. The specimen under the microscope is a transverse section of the fœtus-containing sac, and I think will be found to exhibit the organic muscular fibre. I speak thus hesitatingly, because I have in mind the great difficulties frequently attending the diagnosis between connective tissue and unstriped muscle. The resemblance between these two tissues being so great, other considerations than those founded upon the mere appearances are to be sought for in support of one or the other view. One of these is the arrangement of the cells and fibres. In connective tissues, of which tendon is the type, there will be found as a rule a regular arrangement of the cells and fibres. In making a transverse section these will be cut transversely. The specimen under the microscope is a transverse section of the sac, and, therefore, if this were composed of connective tissue, we would expect to find the fibrillæ and cells cut transversely, whereas it will be seen the arrangement is by no means uniform, some of the cells being severed transversely, some obliquely, and others longitudinally, but by far the greater number in the latter direction. It is true that this regular arrangement of connective tissue is not without its exceptions, and, unfortunately for that portion of my argument founded upon the arrangement of the constituent parts, the ovary is an organ which presents one of the most marked deviations from the rule. I say unfortunately, because, it may be recalled, the sac is adherent to the right ovary, although it is not yet apparent whether the adhesion is inflammatory or organic. Waldeyer, in Stricker's Manual, says that in the ovary, beneath the albuginea, there is "a layer of compact connective tissue, also poor in cells, whose fibres show no special attempt at stratification, but run in every conceivable direction." On the other hand, His believes this layer of so-called connective tissue, and indeed the whole stroma

of the ovary, to be composed of "stunted muscular tissue," to which he gives the name of "spindle tissue." In this individual case, therefore, it is impossible to decide upon the nature of this tissue by its arrangement. If the adhesion between the sac and ovary is vital, *i.e.*, organic, and therefore the sac a mere proliferation of the ovarian stroma, it is to be inferred that it would preserve the irregular arrangement of the parent cells, concerning the nature of which, however, authorities disagree. Whatever value, in a diagnostic point of view, the arrangement of the elements may possess in general, there is unfortunately nothing to be learned from it in the present instance until the nature of the attachment to the ovary is decided.

It will be observed that in and around the nucleus of many of the cells there are numerous oil-globules. These I regard as the first traces of involution, which is said to begin about the first week after delivery (Dalton). In the case under consideration, the full term had been passed by more than that time. It is possible that the behavior of these cells under polarized light might help to determine their nature.

The importance of the presence of muscular fibre in this sac, provided its adhesion to the ovary is decided to be inflammatory, is evident. In that case it would have to be regarded as a new formation, a metamorphosis of the cells of the fœtal membrane.

Leaving this interesting question, I would call attention to the uterus, which is enlarged to about double the normal size, is very vascular, and presents the remains of a decidua. The decidua was distinctly felt by me on introducing my fingers into the uterus, and was broken up by the necessary examinations and discharged by the vagina.

In conclusion, I would remark that if this be decided to be a case of external ovarian or tubo-ovarian pregnancy, it is very unusual in such cases to find the ovaries and tubes so little involved. In this case their structure does not appear to be altered. It is my opinion that blood was conveyed to the placenta through the vessels of the right broad uterine ligament.

The ovaries have been preserved intact, and therefore the situation of the corpus luteum has not been determined.

Dr. JAMES TYSON said he had carefully examined the section of the cyst-wall under the microscope, and had come to the conclusion that the large granular spindle cells there found were *not* unstriated muscular-fibre cells, but connective-tissue cells,—that is, such cells as we meet in what might be called the second stage of organization of inflammatory tissue, in which round cells have disappeared and spindle cells have replaced them, which in the third stage or stage of complete cicatricial tissue would be replaced by pure fibrillated connective tissue, by much of which indeed they are already accompanied. As to the state of incipient fatty degeneration to which Dr. Henry called attention, Dr. T. did not consider the granulation in the cells any more marked than is very often found in these large spindle cells of new formations.

Dr. C. B. NANCREDE asked Dr. Tyson whether the tissue of the cyst was not too old to contain the comparatively young elements of lymph which these spindle cells represent, especially since the specimen was removed from that portion of the sac which must be considered the oldest.

Dr. TYSON thought not, as the new tissue might be said to be constantly forming.

Dr. H. LENOX HODGE asked whether the post-mortem examination showed whether an operation could have been performed with any prospect of success.

Dr. HENRY replied that the post-mortem did prove that if the woman had been in proper condition to permit the operation, there would have been no difficulty in performing it.

Dr. NANCREDE asked whether the post-mortem examination accounted in any way for the occurrence of the extra-uterine fœtation. When we examine the causes producing extra-uterine fœtation, at first sight it would seem a matter of wonder that it should not be an every-day occurrence. The only explanation of this seems to be the want of sufficient nourishment for the ovum in its abnormal situation. Thus, an ordinary catarrh of the Fallopian tubes would probably so interfere with the ciliary movements by which the ovum is aided in its onward course, as to allow of its remaining in the tube. In some cases salpingitis results in a complete destruction of these ciliary cells. A more frequent and efficient cause is the adhesions resulting from an old perimetritis. These, by their contraction, cause stenosis, if not obliteration of the oviduct, in some cases permitting the passage of sperm, but not the ovum. Other causes might be mentioned, but the before-mentioned ones will suffice.

As confirmatory of these remarks, it is an interesting fact to note that these extra-uterine conceptions occur most frequently in primiparæ who have been barren for a long time after marriage, and in multiparæ between whose last pregnancies and the extra-uterine one a long time has intervened.

As to operation, it seemed to Dr. N. a great pity that something had not been done in this case. In some thirty-four cases that he had hurriedly collated, where the operation had been performed after the death of the fœtus, some thirty-one recovered, whereas when left to the unaided efforts of nature a much greater mortality obtained, something like fifty-two per cent. In the present case, an operation would confessedly have been an easy one. Where the placenta is left *in situ*, the number of successes would probably much

exceed that before mentioned, since one of the greatest immediate risks of the operation is from hemorrhage caused by the removal of the placenta. When a rupture of the cyst occurs, and the diagnosis is clear, in view of the result of recent abdominal surgery, and the experience gained in ovariotomy as to the innocuousness of silk, and much more catgut, peritoneal ligatures, he thought it the duty of the surgeon to perform gastrotomy in order to secure the bleeding vessels. He considered this a duty, because death in such cases was clearly traceable to hemorrhage and the shock produced by large amounts of blood in the peritoneal cavity. Besides, in such cases death is a *certainty*, while the operation offers a *chance* of success.

In those cases where the child is carried to term, and it dies, an operation is frequently successful. When suppuration has occurred, especially when an opening has formed in the abdominal walls by ulceration, the operation is almost always attended with favorable results. The longer, however, it can be delayed the better, provided the above results do not obtain; then, within the limits that ordinary surgical experience dictates, the sooner it is done the better. In illustration of the risks run by a patient who bears around with her an apparently innocuous fœtal cyst, Dr. N. related the case of a woman who had passed her full term by some eighteen months, and yet was brought to death's door by suppuration excited in the cyst merely from the depressing influences exerted by grief. This woman, however, reduced apparently to the most unfavorable condition for operation, recovered on its performance. In the light of recent operations upon the healthy peritoneum, this operation ought not to be considered so desperately dangerous a one *per se*.

In four or five cases of abdominal section recently performed for intussusception of the bowel, where prolonged manipulation has been necessary, a surprising proportion of success has obtained. Other similar operations show how much less sensitive a healthy peritoneum is than most believe; although the puerperal state doubtless modifies this to a great extent.

In the case at present before the Society, no cause of death has been demonstrated beyond the shock from the death of the fœtus and its incipient decomposition, resulting probably in some form of blood-poisoning.

Dr. J. Ewing Mears alluded to a case in the practice of Dr. Atlee, in which the operation for removal of the fœtus was performed several months after the death of the latter. The remains of the fœtus and the fluid contained in the cyst were very offensive. The diagnosis was not accurately made, although the condition was suspected. The cyst was opened and its contents removed, the cyst washed out, and the patient recovered. He quite agreed with Dr. Nancrede, that more frequent efforts should be made to save the mother by operation.

Dr. M. desired to know whether the fœtus occupied a median or lateral position in the abdominal cavity.

Dr. Henry said the child's occiput occupied the left iliac fossa, and the trunk passed obliquely upwards and to the right. During life the vertebræ could be felt passing in this direction through the abdominal walls of the mother.

He thought the question of operation in this particular case had been discussed too much from an anatomical point of view and with insufficient clinical data. These, when given, might lead the advocates of operation to moderate their views. He knew that cases of recovery after operation had been reported where the patients' condition was apparently desperate, but in these cases accurate clinical histories and records of pulse and temperature were not given.

Dr. H. said that non-interference was decided upon on account of the woman's condition. She was suffering intensely, the uterus and surrounding parts were in a state of great irritation, she had a rapid thready pulse, was bathed in perspiration, in fact almost in a state of collapse and liable to sink at any moment; so that it seemed not unlikely that the operation would cause immediate death.

Dr. Nancrede referred to a report of one case in a recent number of the *Edinburgh Medical Journal*, where pulse- and temperature-records were given in full.

Dr. N. also alluded to certain apparently desperate cases of blood-poisoning following rupture of an ovarian cyst, its suppuration induced by any cause, or after ovariotomy, where the removal of the decomposing fluids, etc., has resulted in cure. Peaslee and Sims report cases where the most dangerous septicæmic symptoms were produced by an astonishingly small amount of septic fluids, in one case amounting to only a tablespoonful or so. When these were removed by drainages and washing out of the abdominal cavity by antiseptic fluids, all the evil results disappeared in a short time. This peritoneal drainage and antiseptic washing applied to the after-treatment of gastrotomy for extra-uterine pregnancy, would probably much lessen the risks of the operation.

Dr. E. O. Shakespeare said that, through the kindness of Dr. Henry, he had studied two sections of the cyst, the last one to-day. The appearances which struck him led him to agree entirely with the remarks of Dr. Tyson. The characters of the tissue are precisely like those he had seen in sections of the outer sheath of the optic nerve in cases of optic neuritis, where the sheath has been in a state of irritation for some time. This product presents of course a connective-tissue character. The appearances are similar also to those presented by the adventitious sheath

of arteries after ligation. It is true, in this adventitious sheath we sometimes find unstriated muscular-fibre cells. But the great mass of the cells found in the inflamed adventitia must be looked upon as the progeny of connective-tissue corpuscles and the leucocytes rather than as the offspring of muscle-cells. With respect to the section of this fœtal sac, the fact that the cells were found only singly in the meshes formed by the intercellular or connective-tissue fibres and elastic fibres and along the course of the bundles of fibres led him to believe that the tissue was fibrous in its character, resembling new fibrous tissue. The cells themselves did not present the typical characters of smooth muscular cells. The shape of the nucleus in unstriped muscular-fibre cells is generally rod-like, while the cells in this structure have oval nuclei, and many round. Nowhere could he satisfy himself that they were rod-shaped. As to the test by polarization, he thought the results must be entirely negative; he had not been able to find any statement as to the effect of polarized light upon the spindle-shaped cells of the connective tissue.

Dr. JOHN GUITÉRAS said that as some of the members seemed to think the cells were those of spindle-cell muscle, he thought the question should be referred to the Committee on Morbid Growths, as he believed the existence of muscular tissue to be quite possible.

Only recently has attention been given to the regeneration of muscular structure, as also to that of nervous tissue. Until the investigations of Zenker, who found that after the degeneration of the sarcous element in fevers and other conditions the muscular fibre develops again from the nuclei under the sarcolemma,—until these investigations, the regeneration of muscular tissue was disbelieved. The present case might demonstrate the mode of formation of muscular tissue from embryonal formative cells or young connective-tissue cells.

Dr. HENRY said undoubtedly there are no characteristic features by which the two kinds of cells could be distinguished. The question is whether it is possible to say where connective tissue begins and where muscular tissue ends; but no one attempts to answer it.

That it is difficult to distinguish the two is proved by the difference of opinion regarding the structure of the ovary between two such observers as His and Waldeyer, to which allusion has already been made in the paper introducing this discussion. The resemblance therefore being so great, if there is any force in the argument founded upon the arrangement of the constituent parts I think it should be received as final. On considering the connective and muscular (unstriated) tissues, it will be found, as a rule, that the cells and fibres of the former are parallel, while those of the latter are not so. In the uterus, for instance, there are three layers of muscle, the outer passing transversely across the fundus and continued along the Fallopian tubes, the middle running in every direction, longitudinally, transversely, and obliquely, while the inner is arranged in the form of two hollow cones whose apices surround the tubes, so that a transverse section of this organ will show fibres running in every conceivable direction. In the bladder there is an external longitudinal and an internal circular layer, also a band of oblique fibres arising behind the orifice of the ureter and inserted into the middle lobe of the prostate gland (the "muscle of the ureter" of Sir Charles Bell), so that a transverse section of the bladder at any point will exhibit fibres crossing at right angles, and a still more complicated arrangement if the section include the muscle of the ureter. The muscular coats of the stomach and intestine present similar arrangements. On the other hand, it is unnecessary to go into any detail in order to prove that connective tissue where composing an organ, as in tendon and cartilage, or arranged as a membrane, as in subcutaneous adipose tissue, is comparatively regular in its arrangement. On this ground alone—viz., the arrangement of the constituent parts—I would accept the view of His as to the structure of the ovary in preference to that of Waldeyer.

Dr. TYSON remarked that in treating a question where the points of distinction were so few as between the cells under consideration and muscular-fibre cells, we must take into consideration the locality of the cell; just as in the case of the leucocyte we call it a colorless blood-corpuscle in the blood, a pus-corpuscle in pus, a lymph-corpuscle in lymph, and a mucus-corpuscle in mucus, so here we have no reason to expect to find the elements of muscle, while we have every reason to expect the elements of inflammatory tissue.

Dr. HENRY said he thought that gestation should not be overlooked. He thought the fact that a fœtus was contained in this sac would give an impulse in the direction of muscular tissue, and that we might therefore reasonably expect to find it.

Dr. NANCREDE thought it very unsatisfactory to apply the *a priori* method of reasoning to microscopic investigation.

Dr. TYSON said, however that might be, it is nevertheless true that such method of treating the question as he suggested is sometimes necessary.

Dr. SHAKESPEARE could not agree with Dr. Henry as to connective tissue. He did not think that tendon was to be considered a fair type of connective tissue as it is found throughout the body. He could not conceive of a more irregular arrangement of fibres than that which is present in the skin and intermuscular connective tissue.

Dr. HENRY thought that wherever connective tissue forms areolæ it possesses a universally irregular arrangement.

The specimen was referred to a special committee, consisting of Drs. Henry, Mears, Nancrede, Longstreth, and Shakespeare, for report and examination.

Tumor removed from the external auditory meatus. By Dr. CARL SEILER.

The tumor which is before the Society was extracted from the external meatus of a patient at the German Eye, Ear, and Throat Infirmary, a few days ago. The circumstances were as follows:

John G. applied to the Infirmary for deafness in the left ear. He stated that he had never been able to hear well with that ear, but that within the last six months the deafness had increased so much that he was unable to hear anything at all on the left side. An examination of the ear showed the external meatus completely filled with a grayish, semi-solid mass of probably hardened secretion. After removal of this mass, which was tightly adherent to the walls of the canal, the white, glistening surface of a tumor made its appearance. This tumor proved, upon further examination with a probe, to be very hard, void of any sensation, and filling the calibre of the canal so completely that it was impossible to slip the thin wire of the écraseur around it, and the point of attachment could not be ascertained. An excision under such circumstances could not be made that day, and so he resorted to cauterization with the solid nitrate of silver, with a hope of contracting the growth sufficiently to ascertain its attachment.

The next day the patient presented himself again at the clinic, and the tumor was found sufficiently contracted to pass the probe all around. It was found to be attached to the upper wall of the external meatus, about midway between the external orifice and the membrana tympani. The écraseur was then applied and the tumor removed by means of the wire sling without the slightest difficulty. A great mass of hardened secretion was found lying behind, upon removal of which, several small ulcers were seen on the walls of the canal.

PROCEEDINGS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

THE VICE-PRESIDENT, DR. BENJAMIN LEE, in the chair.

AT a conversational meeting, held April 26, 1876, after the reading of Dr. TAYLOR'S paper, for which a vote of thanks was tendered to the author, the subject of the "Influence of Maternal Impressions" was discussed.

Dr. WM. GOODELL thought that there is more truth in this popular belief than physicians have been willing to concede. He had noticed, however, of late, a growing disposition on the part of scientific men to treat the subject with more consideration. As a matter of fact, the spermatozoon, a microscopic cell, is capable of transmitting and reproducing paternal traits, both mental and physical. Hence it would seem highly probable that the mother, who contributes so much to the structure of the new being, would be more likely to impress upon it her dominant traits during its plastic stage, and that unusual excitement or agitation on her part during this period would be exceedingly liable to disturb the development of the fœtus. The following case is one in point. He was called to attend a lady, whose husband (a physician) was possessed with the idea that the child would be born with some deformity of the genital organs. This, indeed, Dr. G. found to be the case, for at the birth the foreskin was entirely wanting, and the glans encircled by a ring of granulations, presenting the appearance of a recent circumcision. This occurrence was attributed to the fact that the mother, during early pregnancy, had taken extraordinary interest in a description of this Hebrew rite, which her husband had been invited to witness in a neighbor's child. Among the Jews, children are not infrequently born circumcised; and this curious fact is not to be explained by the law of heredity alone.

Dr. J. S. ESHLEMAN said that there was undoubtedly a germ of truth in the popular belief, but he always endeavored to explain away such morbid impressions, when they existed, for the sake of the mother, whose health might be affected by dwelling on them.

The following case in Dr. E.'s practice appeared at first to strongly confirm the opinion that maternal impressions may affect the development of the fœtus. An Irishwoman was convinced that her child would be born with a tumor "on its seat," because some one had described such a congenital growth in her presence. At the birth a large prominence was discovered in the child's perineum to confirm her impression. This tumor was subsequently removed by Prof. Gross, who pronounced it a fœtal cyst, due to a germ that had been blighted in its development. If the nature of the growth had not been demonstrated, this case would have been confirmation strong; but it would be difficult to see how a mental impression on the mother could be powerful enough to introduce into the uterine cavity the germ of another child.

Dr. JOHN G. STETLER said that it was an acknowledged physiological law that the first pregnancy influenced subsequent conceptions, but thought that it acted locally through the impression on the uterine tissues probably, rather than by means of the nervous system.

Dr. WM. B. ATKINSON referred to a case of natural amputation below the elbow-joint, in his own practice, which had been already reported to the Society. He could scarcely imagine how the umbilical cord could exert sufficient pressure to strangulate a limb and

yet maintain its own integrity and continue its circulation. He mentioned a family where the children were well formed, although the father's face was badly disfigured from birth by what is called a fire-mark. He thought that, if maternal impressions had anything to do with it, this man's children and half of the other children in the lower part of the city, where he resides, should be similarly marked. Since the war there has been a great increase in cripples in our streets, but no corresponding increase has been noticed in the number of congenital deformities. In the case first mentioned, the mother afterwards remembered having seen a one-armed soldier, but it was only six weeks before her confinement. If maternal impressions really exert such a direct effect on the fœtus, then an enlightened public hygiene should prevent cripples from exhibiting themselves in crowded places, for fear of injuring the prospects of the rising generation. An old gentleman perambulates the western part of the city, who has no patellæ, and is consequently dreadfully deformed. Notwithstanding the fact that he must have been seen by hundreds of pregnant women, Dr. A. had yet to hear of a single case of similar deformity or any other attributed to this as a cause, this gentleman's own children not excepted.

REVIEWS AND BOOK NOTICES.

THE ANATOMY OF THE HEAD. By THOMAS DWIGHT, M.D. Boston, H. O. Houghton & Co., 1876.

The author has endeavored in this volume to present the difficult study of the anatomy of the head from a new point of view. Topographical studies are found in every text-book, and the several parts of the anatomical systems are of course already well described. Studies of transverse sections of the head, however,—made at arbitrary places of selection,—have been reserved for monography.

Doubtless such sections are valuable, and it would be well to add them to the usual methods of teaching. Whether they are of sufficient importance to have a separate work devoted to them remains to be seen. It has appeared from the letter-press that Dr. Dwight has not confined his descriptions to the novel exposition of relations as determined by his sections, but treats his subject very much after the traditional style, and introduces here and there a wood-cut which has no special bearing upon the claim made for his work.

With reference to the sections, they are collected at the back of the book, and are arranged from before backward. Each picture represents *two* sections, the one on the right lying upon a different plane from the left, so that more illustration of the subject is secured than would at first sight be apparent. The charm of novelty attaches itself promptly to these pictures, and the only detraction the reader acknowledges in their examination is that they do not do justice to the original drawings. We boldly assert this, although we have never seen the originals. But the monotonous grays and absence of comfortable shadows and high lights tell their own story, the one so often the result of the student's labor, of having the so-called reproduction of his drawings falling below the standard expected of them. Some of the fault in this instance is to be attributed to the unfortunate quality of the paper employed. It is without tone, and too hard.

Dr. Dwight is, however, to be congratulated upon the general pleasing character of his book, which, while not presenting many new facts to science (this indeed being impossible), has nevertheless the advantage over other anatomical essays in the same direction of being drawn from the best authorities, and presenting in a compact space an admirable *résumé* of the subject. H. A.

HEALTH RESORTS OF EUROPE AND AFRICA. By THOS. MORE MADDEN, M.D. Philadelphia, Lindsay & Blakiston, 1876.

Of making many books there is no end, the modern professional reviewer is apt to alter into, there is no use; and when a work really novel and valuable appears,—an oasis amidst a desert of text-books,—joy springs out of the usual monotone of calm indifference. Dr. Madden's production is one of these inspiring themes; the professional world is really better off for his labors. He makes clear an important and much mystified subject, by the light of his very exceptional personal experience. He speaks of what he has seen, and not of what he has learned from guide-books and local physicians whose livelihood is dependent upon the reputation of their spa. Unfortunately, Europe and Africa alone inspire him, and therefore his book is not the one wanted most in this country. If some physician would do for the New what Dr. Madden has done for the Old World, he would confer a great blessing on the American people. For if there is anything which we do not know, it is the exact value of the innumerable climates and mineral waters which nature has scattered over North America. We have not space to follow even the general introductory chapters of the book before us, let alone to discuss details of the health-resorts and spas. We think the division the doctor makes of sedative and stimulating climates true to nature, and his remarks upon the relations of these to disease seem very judicious.

In its bearing upon the modern belief in the contagiousness of phthisis, it is worthy of notice that since Malaga has become a favorite resort for phthisical patients there has been such a notable increase in the number of cases

among the natives as to lead to the general belief in the contagiousness of the disorder, and consequently to the exclusion of consumptives from many of the Spanish boarding-houses. It is also stated that in Algeria the Tebibs, or native doctors, believe phthisis to be contagious.

In taking leave of this book, we thank its author for several hours of pleasant and profitable reading, and most cordially recommend any of our subscribers who may have clients desirous of seeking health in the Old World, to consult, before deciding as to localities, the personal experiences and studies of Dr. Madden.

PRINCIPLES OF HUMAN PHYSIOLOGY. By WM. B. CARPENTER, M.D. Edited by HENRY POWER, M.D. A new American from the Eighth Revised and Enlarged English Edition, with Notes and Additions by FRANCIS G. SMITH, M.D.

A new edition of an old favorite, which, by the labor of the editors, is fully arrayed in the latest fashions of the day.

GLEANINGS FROM EXCHANGES.

DAMIANA (*The Medical Record*, August 19, 1876).—Dr. Alexander Murray reports five cases in which he administered damiana for the relief of impotence, with variable success. Some slight relief was experienced in two or three of the cases, but no decided and unmistakable influence of the drug in the sexual organs seems to have been observed. Damiana produces an eruption of acne after having been taken for some time; it induces large, soft evacuations from the bowels, and occasionally nausea and vomiting. The dose of the fluid extract is from two to four drachms. An infusion may be prepared as follows:

Damiana, leaves and flowers, 2 oz.;
Liquorice, not bruised, ¾ oz.;
Boiling water, 16 oz.

Macerate for eight hours in a covered vessel, and strain. Dose, 2 to 4 ounces.

POISONING BY MEDICINAL DOSE OF IODIDE OF POTASSIUM (*The Medical Press and Circular*, August 2, 1876).—Dr. Charles Drysdale reports the case of a man, æt. 36, who was suffering with right hemiplegia, which had evidently been caused by an embolism, as there were abnormal sounds of the valves of the heart. As some symptoms in addition pointed to dilatation of the ascending arch of the aorta, he had on three several occasions prescribed ten-grain doses of the iodide of potassium thrice daily in water. On the first two occasions the effect was to produce a crop of acne-like pustules on the face. The last trial, which lasted three days, brought forth an alarming-looking eruption on the backs of the hands, as well as on the face and chest. Blebs were formed containing a bloody fluid, which lasted without desiccating for some weeks.

THE USE OF ERGOT IN THE TREATMENT OF PURPURA (*The Practitioner*, November, 1876).—Dr. L. Duncan Bulkley calls attention to the treatment of purpura by ergot, in an interesting paper, the principal points of which are as follows:

1. The treatment of purpura as advised in the books is ineffective and tedious in lighter cases, and insufficient to save life in many of the severe or hemorrhagic cases.

2. Ergot possesses a very decided power in contracting the involuntary muscular fibre, causes divided arteries to contract, acts upon the smaller arteries and capillaries, and has been proved a valuable arrester of hemorrhage in many affections.

3. In purpura the action of ergot is very manifest, causing, when given in sufficient doses, an almost, if not quite, immediate cessation of the cutaneous and other hemorrhages.

4. The most effective method of administration of ergot is by hypodermic injection, and this means renders it peculiarly valuable in purpura hæmorrhagica where there is hæmatemesis, so that its administration by the mouth would be impossible, or in cases where the stomach would not tolerate it.

5. While ergotin, a purified, watery extract, has been advised by many, and has been found to act efficiently in many cases, its action is liable to be uncertain by reason of age or faulty preparation, and after dilution with water it soon becomes inert.

6. Fluid extract of ergot may be administered hypodermically, undiluted, and without local accident, as abscess or inflammation, if care be exercised; and its effect is very prompt and certain.

7. Ergot may be thrown under the skin in any part of the body; the gluteal and shoulder muscles answer well, but the places to be preferred are about the pectoral muscles or at the sides of the chest, about half-way down.

8. Severe cases of purpura require the frequent repetition even of very large doses, whether by the mouth or by hypodermic injection; both methods may be combined.

9. Generally one or two grains of ergotin or from ten to fifteen minims of the fluid extract hypodermically, once or twice a day, are sufficient, but the former may be safely increased to five grains, and the latter to twenty or thirty minims, and repeated as often as every hour and a half.

10. Larger doses relatively are required when given by the mouth, and their action, thus given, is more slow.

11. No fear need be entertained of any untoward effect; an ounce of fluid extract by the mouth, and seven grains of ergotin hypodermically, have failed to give rise to any unpleasant symptoms; and from half a drachm

to a drachm and a half of the tincture or fluid extract have been continued for several months without producing ergotism.

12. Other preparations of ergot may be employed internally, as the powder, solid extract, wine, or infusion, the dose being proportioned to the effect required or produced.

The Cold-Bath Treatment of Enteric Fever (*The Practitioner*, November, 1876).—Dr. John McCombie, after considering the use of cold baths in enteric fever and alluding to the remarkable statistics published by some of the German observers, concludes as follows: Whilst we are unable to give our assent to the opinion that cold water is omnipotent in the treatment of enteric fever, we consider it a valuable addition to the therapeutics of this disease. From the simplicity of its administration, from the absence of danger in its use in the majority of instances, and from the beneficial effect derived from the reduction of the temperature and the production of sleep, we think it is far from having attained that position among the therapeutics of this disease which it deserves, but we do not hesitate to affirm that there are other agents of great, and, in some cases and under certain conditions, of greater value, and that the treatment of enteric fever has not yet resolved itself, as certain German authorities would have us believe, into the use of the thermometer and the cold bath.

Gokhru in Seminal Discharge and Incontinence of Urine (*The Indian Medical Gazette*, July 1, 1876).—Cheytan Shah, Assistant-Surgeon to the City Dispensary, Peshawur, comes to the following conclusions in regard to gokhru: 1. It is useful in certain cases of premature discharge, and for certain forms of involuntary emission. 2. It entirely cures the moisture or dribbling that occurs from the orifice of the urethra shortly after micturition. 3. The effects are manifested in the course of a week. 4. In a few cases relapses occur. 5. A few patients complain of lassitude and a few of dryness of the mouth from its use. 6. It appears to have a marked effect upon irritability of the bladder and the prostatic region, and after its use urine can be retained in the bladder for a longer period.

Paracentesis in Pleurisy followed by Sudden Death (*The Lancet*, November 4, 1876).—Dr. Broadbent reports a case of pleurisy in which tapping was followed by sudden death, which occurred three hours and a half after the operation. The patient was a shoemaker, 62 years of age, who, up to the time of his attack, had enjoyed good health, but had been in the habit of drinking beer freely. He was admitted into the hospital on January 21, suffering from pleuritic effusion on the left side, resulting from an attack of acute pleurisy weeks before. The onset of the attack was of the usual character. On admission there were signs of effusion nearly filling the left pleural cavity, the heart's apex being displaced to the right of the sternum. The urine was free from albumen. The patient slept badly, and suffered from severe attacks of dyspnœa coming on in paroxysms. On January 26, at 2 P.M., paracentesis with the aid of the aspirator was performed, the puncture being made with a medium-sized needle between the seventh and eighth ribs, a short distance outside the angle of the scapula, the spot selected being rather farther out than usual on account of the presence of vocal fremitus farther back. Eighty ounces of nearly clear serum were withdrawn, with the results of relief to the breathing and partial return of the heart to its normal position. It was not attempted to remove all the fluid. At 3.30 the patient was doing well; at 5 he was cheerful, and said he felt better; he then had tea; at 5.45 he appeared to be quiet and was lying still, and on looking at him it was found that he was dead. The fatal issue might have been due to detachment of a clot or to syncope, but the post-mortem examination showed nothing to account for it except on the hypothesis of syncope. The left pleura contained a good deal of clear serum. The heart was large, its apex pushed to the left, the vessels twisted, its cavities empty, the left ventricle dilated, and the substance pale.

The Aspirator in Strangulated Hernia (*The Lancet*, September 2, 1876).—Dr. Henry Blane reports a case of strangulated inguinal hernia, in which all attempts at reduction by taxis failed utterly until an aspirator was introduced and an ounce of serum with a large quantity of gas withdrawn. The hernia then slipped back at once into the abdomen. The case went on to entire recovery.

Successful Abdominal Section for Extra-Uterine Fœtation (*The Lancet*, November 4, 1876).—Mr. Thomas R. Jessop reports the first case of abdominal section for extra-uterine fœtation in which the lives of mother and child have been preserved. Until within the last few years surgeons and obstetricians had an unreasonable dread of meddling in any way with the peritoneum, but the success that has attended the later performances of abdominal section for the removal of ovarian and abdominal tumors, and, more recently, for the relief of intussusception of the bowel, has produced quite a revolution of opinion. Campbell and Ramsbotham, the highest authorities of their day, condemned any attempt to save the child's life in cases of extra-uterine fœtation, as the operation had been invariably fatal to the mother. Mr. Jessop has, however, advanced good reasons for departing in this instance from the decision of these writers. On account of vomiting and pain, the mother's life had been gradually ebbing away for months, and at the time of coming under observation she was almost *in extremis;* the child, on the other hand, exhibited signs of vigor and of strength. The removal of the fœtus was ob-

viously the only possible means of saving the life of the woman, and did not appear to offer any great risk to the child itself. The operation, which was facilitated by the case being of the abdominal variety, was accordingly performed, and both mother and child were saved. Much stress is very properly laid by Mr. Jessop on the after-treatment he pursued. The placenta which covered the inlet of the pelvis was left *in situ*, to come away subsequently by disintegration through an opening left in the lower part of the abdominal incision. The child grew and prospered for eleven months, but was then seized with croup and inflammation of the lungs, of which it died within a week. The case is interesting in many respects, but whether it will serve as a safe precedent must depend on future experience.

Gelseminum Sempervirens (*The Lancet*, October 21, 1876).—Dr. Sydney Ringer, after considering various effects of gelseminum upon man and the lower animals, comes to the following conclusions:

1. That gelseminum produces but little, if any, effect on the pulse.
2. That it does not affect the blood-pressure.
3. That in man it probably acts on the respiratory centre less energetically than in the lower animals.
4. That in man it acts on the muscles of the eye, and produces other symptoms before it influences the respiratory centre.
5. That in man it in all probability affects the spinal cord before the respiratory centre.
6. That it exerts no influence on the mind, and none on the cutaneous sensibility.
7. That it does not affect the temperature.

Radical Cure of Hydrocele with Injection of Carbolic Acid (*New York Medical Journal*, November, 1876).—Instead of the customary puncture and subsequent injection with tincture of iodine, which always produces pain and confines the patient to bed for some days, Prof. Hüter has tried and highly recommends an injection of carbolic acid, two per cent. In one case there was no pain whatever, either during or after the operation; the patient took a walk immediately after, and was not confined to his house. On the fifth day there was no swelling nor tenderness, and the hydrocele could be considered cured.

Calabar Bean as a Lactagogue (*The British Medical Journal*, October 18, 1876).—Dr. W. Munro, remembering the power of calabar bean to dilate the peripheral blood-vessels, and wishing to restore the secretion of milk after it had disappeared from the breast for about three days, thought this dilating power might be made useful. He accordingly prepared an ointment of the strength of twenty grains to the ounce, and ordered it to be applied, and washed off carefully before the baby was allowed to suckle. After two applications, *the baby not having been put to the breast meanwhile*, the milk returned in full flow.

MISCELLANY.

Spirit-Drinking in Peru.—The first census of Peru since it ceased to be a Spanish colony has just been taken. The late President, Don Manuel Pardo, was its proposer. It discloses an awful mortality from spirit-drinking. According to this new numbering of the people the population amounts to 2,720,735, a fearful falling-off, which is accounted for by earthquakes, diseases, civil war, and "brandy." This last has, it appears, killed its tens of thousands, and it may be fairly assumed that the result of this increase of national drunkenness will be the superseding of the present race of Peruvians by the Chinese and the Mormons.—*Medical Examiner.*

An Itemized Bill.—Nélaton was stopped in Paris to restore to their placè several feet of the intestines of a wounded man. This man, when well, called for his bill. He was told that it was five hundred francs. Being a merchant, he asked for an itemized bill. Nélaton seized his pen and wrote as follows: "For restoring five feet of intestine at one hundred francs a foot—five hundred francs." The merchant was satisfied and paid the account.—*The Clinic.*

NOTES AND QUERIES.

November 16, 1876.

Mr. Editor,—Dear Sir,—Having been quite interested in the articles in your valuable journal on "Diphtheria," allow me to suggest as a local remedy peppermint. I use the (candy) drops, let them dissolve slowly in the mouth, as many as required to keep up the impression of cold at each inspiration. I speak from personal experience as well as several years' trial in practice. The easy administration, especially to children, the instantaneous and marked relief which it affords, make me believe it a valuable adjunct to our local remedies; in fact, I use it in all diseases of the throat where there is a hyperæmic condition, and through an epidemic of scarlatina, and in all cases with equally good results.

W. L. McKibbin, M.D.

Bark Valley, Fulton Co., Pa.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM NOVEMBER 5, 1876, *TO NOVEMBER* 18, 1876, *INCLUSIVE.*

Clements, B. A., Surgeon.—To rejoin his station at Fort Sanders without delay. S. O. 146, Department of the Platte, October 30, 1876.

Forwood, W. H., Surgeon.—Assigned to duty temporarily in office of Medical Director of the Department. S. O. 165, Department of the South, November 4, 1876.

De Graw, C. S., Assistant-Surgeon.—Granted leave of absence for four months. S. O. 231, A. G. O., November 4, 1876.

Hall, J. D., Assistant-Surgeon.—Assigned to temporary duty at Summerville, S. C. S. O. 164, Department of the South, November 4, 1876.

Reed, W., Assistant-Surgeon.—Leave of absence extended one month. S. O. 154, Military Division Pacific, and Department of California, November 8, 1876.

PHILADELPHIA, DECEMBER 9, 1876.

ORIGINAL LECTURES.

EPITHELIOMA OF THE FACE.

ABSTRACT OF A CLINICAL LECTURE BY PROF. LOUIS A. DUHRING.

Delivered at the University Hospital.

Reported by Dr. ARTHUR VAN HARLINGEN, Chief of the Skin Clinic.

THE patient is an Irish laborer, sixty years of age, who states that he has always enjoyed good health. He attributes the origin of the affection for which he now seeks relief, to a blow received ten years ago from a piece of wood. The wound made at that time soon healed up, but a month later he noticed a little scaling at the locality, together with an appearance of the skin which we may conclude from his account to have been a small patch of induration, perhaps the size of a split pea. Subsequently, a small crust formed, which afterwards, in the course of two or three years, broke open, showing a sore, which has remained about the same size from that time to the present.

On examination we find a quarter-dollar sized, superficial ulcer situated over the right malar bone, roundish in form, with well-defined, abrupt, hard edges. Though shallow, it has a peculiar punched-out appearance; it is covered with a scanty secretion, and bears considerable handling without showing any tendency to bleed. Around this ulcer there is decided induration of the skin, extending over an area about the size of a silver dollar. Near the edge of the ulcer the tissues are reddish, and, on pressure, show decided hyperæmia. It is evident, therefore, that the process involves also the immediately surrounding structures. So much for what we see before us. Let us now determine the diagnosis.

No one who has seen cases of this kind could well mistake the disease. We see that the affection is evidently a neoplasm; it must, therefore, in all probability, be either lupus, syphilis, or epithelioma; and I may say here that it is the latter,—epithelioma,—and an example of the superficial variety.

The following comparison of the more prominent features of epithelioma and syphilis will bring out the diagnosis between these diseases. In epithelioma we usually find only one original point of disease; in syphilis there may be one, two, three, or more. Epithelioma may exist a long time (in the present instance, ten years) without change; syphilis is more rapid in its course, the ulceration usually going deeper (especially when, as here and in the superficial variety generally, it is solitary). The edge of the epithelial ulcer is everted, hard, and cartilaginous; the edge of the syphilitic ulcer is smooth and sharply cut, and seldom rises above the general surface of the surrounding skin. The secretion of the epithelial ulcer is scanty, viscid or watery, and yellowish in color; the secretion of the syphilitic ulcer is more or less abundant, purulent in character, and yellowish or greenish in color.

It may be mentioned here that slight itching is at times present, but this may usually be allayed by simple pressure applied to the part; it is never so severe as to cause the patient to scratch. The affected locality is painful when handled, but does not spontaneously give rise to this symptom. In syphilis pain is generally absent.

Regarding the differential diagnosis between epithelioma and lupus. The latter tends to diffuse itself, as, for example, over a large portion of the face; the patches and tubercles are apt to be scattered, the disease in almost all cases presenting several centres of deposit. I do not recall ever having seen a case of lupus vulgaris where the disease was confined to a single circumscribed area for so long a period as ten years. A characteristic of lupus is its multiple distribution; in superficial epithelioma we have, as a rule, a single ulcer, shallower and less rapid in its growth than the ulcer of lupus. The ulcer of lupus, moreover, generally shows small, pin-head to pea-sized, deposits scattered around its edges. The size of the ulcer, its shallowness, its edges, its base, its secretion, its course, its chronicity, the age of the patient, the single character of the growth, and its seat, are the signs upon which we depend in making our diagnosis.

Epithelioma is not at all an uncommon disease of the skin, and is worthy of the most careful study. It is a form of cancer, and is known under the several names of epithelioma, epithelial cancer, and cancroid. Epithelial cancer may attack either the external skin or the mucous membrane.

There are three varieties of epithelioma which it is worth our while to name: the superficial, or flat, variety; the deep-seated, or infiltrating, variety,—deep-seated because it attacks the deeper structures, infiltrated because it infiltrates other tissues than the skin, as the lymphatics; and the papillary, or warty, variety. The present case is an admirable example of the superficial, or flat, variety.

Epithelioma of the flat variety usually begins in a sebaceous gland or as a tubercle, or it may be in a milium,—one of those pearly granules often seen in the skin of the face in elderly people. It may also arise in a pigmentary or vascular nævus, at the seat of a contusion or other wound or point of irritation. This little tubercle, when it has once appeared, may continue without change for years, when, from some cause or other, appreciable or not, sooner or later it becomes reddish or swollen, or a little fissure appears, covered with a crust, which when broken away leaves a slightly moist surface. At this stage the patient usually begins to be alarmed, and consults his physician; it may remain in this condition for months or years without further growth, until, perhaps, the patient is carried off by some intercurrent disease; or it may enlarge itself, as very often happens. In the present case we may conjecture, from the amount of infiltration present, that a year hence would see a marked change for the worse.

The following case, still fresh in my mind (continued the lecturer), will illustrate the features and course of epithelial cancer when it takes on the deeper action constituting the deep-seated variety of the disease.

I was consulted about a year ago by an otherwise perfectly healthy, well-nourished, strong gentleman, sixty odd years of age, who displayed upon the bridge of his nose a reddish tubercle, raised, acuminated, about the size of a split pea, and looking very much like a highly-inflamed acne papule. There was no family history pointing to cancer. He stated that the tubercle had begun as a small pimple two months previously, and that within the last few weeks a crust had formed upon it, and that it had gradually grown to the size mentioned above.

The crust having been removed by a poultice, showed the existence of a small excavated, conical ulcer, with surrounding hyperæmia, considerable infiltration, and an angry look which plainly indicated that the disease-process was a very active one. The prognosis was grave. The disease was operated upon by caustic potassa, and not only the growth destroyed, but a considerable area of surrounding healthy tissue as well. In two weeks the sore had almost, but not altogether, healed. Within a month from the date of operation, however, the disease had again broken out with increased virulence, a portion of the tissues breaking down and showing a small finger-nail sized, deep, reddish ulcer. The same operation was again performed, even more thoroughly than before, the tissues for a still wider space around being thoroughly broken down and destroyed, notwithstanding which, within a month the patient's condition was as bad as ever. A crater-like ulcer, the size of a quarter of a dollar and about one-fourth of an inch deep, now showed itself. It presented an everted edge which was purplish in color, puffy, bled easily when touched, and gave rise to lancinating pains, especially severe at night.

By this time it had become evident that the disease was one of those malignant forms of epithelioma which go on so rapidly in their destructive course. After consultation with Prof. Agnew, an operation with the knife was determined upon. The whole nasal bone and the entire portion of diseased structure surrounding it was removed. The wound granulated favorably, but, nevertheless, within a few weeks the tissues showed unhealthy granulations again, and in a short time began to break down. Another caustic operation was then performed, chloride of zinc being employed. The pain caused by this application was intense, and the result unsatisfactory. The whole cheek became involved, the disease spreading rapidly; the ulcer extended over the healthy side of the nose, and also involved the lower eyelid, leaving a deep cavity upon the side of the face the size of the palm of the hand; the edge was purplish, puffed, and greatly everted, and the affection the seat of severe lancinating pains.

The patient's health broke down early in the course of the disease, marked by debility, emaciation, and a general cachectic look, accompanied by violent pain in the part, and much suffering. The case terminated fatally within thirteen months from

the first manifestation of disease. It is seldom that epithelioma pursues so rapidly fatal a course. Several years are usually occupied in bringing about such destruction as occurred here.

To return to the superficial variety. This may sometimes pass into the deep-seated form, but such an event is uncommon. When the flat epithelial cancer goes on breaking down and extending deeply at a slow pace, the affection has received the name of "rodent ulcer."

Such, in outline, is the disease known as epithelioma. Of the papillary variety I shall speak on another occasion. Its treatment is destruction of the growth with caustic, electrolysis, or the knife. [The patient before the class was then treated with caustic potassa in stick form, the base and edges of the growth being completely destroyed. The wound was dressed with diachylon ointment.—REP.]

ORIGINAL COMMUNICATIONS.

THE ANATOMY OF THE CEREBRUM.

BY HARRISON ALLEN, M.D.

THE difficulties attending the study of cerebral disease do not always cease with the autopsy, since the results of examination of the skull-contents, as ordinarily conducted, are too frequently inconclusive and contradictory. To invite attention to the necessity of more extended study of the brain,—namely, the microscopical anatomy, both in health and disease,—with a view of lessening, if possible, such discouraging results, is the chief object in preparing this article.

A secondary object is to emphasize the importance of determining the ranges of variation in the brains of idiots and others, and also the possible deviation from the adult standard in old age.

Every physician well knows that, after the closest study, the lesion does not always hold the anticipated relation to the symptoms. It is enough for the candid reader to accept the indications held out by anatomy and physiology, for it is by these alone that clinical histories can be interpreted.

The plan of the cerebrum is briefly as follows:

(1) The optic thalamus at its junction with the crus cerebri is the point upon which the cerebrum turns downward to form the temporo-sphenoidal lobe. Thus the fornix describes a curve from the front of the base of the thalamus in front to the base of the descending horn behind. Concentric within the curve of the latter is the dentate convolution, and beyond it, but beginning at about the level of the corpus callosum, is the hippocampal sulcus. The corpus callosum not only separates the region of the thalamus from the upper portion of the cerebrum, but it makes the calloso-marginal convolution continuous with the hippocampal convolution. The extension of the occipital lobe backwards determines the calcarine and parieto-occipital fissures.

(2) The striated body is the point from which the anterior portion of the brain turns upward. Hence we have on the median surface the calloso-marginal convolution curving round in front of it. The space between this convolution and the upper surface is occupied by others more or less concentric therewith.

(3) The olfactory bulb determines the position of the straight sulcus, and, through the union of the peduncles with the corpora quadrigemina and the optic thalamus, occipital and temporo-sphenoidal lobes, gives unexpected importance to parts remote from one another.

Thus, while the anterior portion of the cerebrum is moulded about the striated body, the middle and posterior parts are moulded about the optic thalamus. When the relation of these two ganglia with the crus cerebri is remembered, viz., the under surface or *crusta* belonging to the first mentioned, and the upper surface or *segmentum* pertaining to the last, we are prepared to learn that the anterior lobes are connected with motion, and the middle and posterior with sensation. The commissural union of the olfactory and optic centres with the latter region is in harmony with this identification. Meynert (Stricker's Manual of Histology, 1872, ii. 409) has affirmed that the temporo-sphenoidal and occipital lobes have direct association, and has shown that patches of sclerosis occur therein in some cases of atrophy of the optic nerve.—(*Œster. Zeit. f. prakt. Heilkunde*, 1869, 14.)

The association of lesions of the anterior portion of the cerebrum with hemiplegia

of the opposite side is well established, and also of aphasia with morbid changes in the parts surrounding the island of Reil.

The difference in appearance of the frontal and the temporo-sphenoidal and occipital lobes is very striking. In the frontal lobe we have associated with the septal area the olfactory bulb as well as the genu and rostrum of the corpus callosum. But while thus compact, fixed, and entering largely into the median parts of the base of the brain, and sending a fasciculus and a special layer of cerbea to the temporo-sphenoidal lobe, it is without any fissure answering to central structure. The temporo-sphenoidal and the occipital lobes (considering them together, which is tenable) are, on the other hand, determined by the curve of the dentate convolution and fimbriated body around the thalamus. These parts are disposed laterally, and are thus, at least towards their distal ends, free, and form the posterior boundary of a deep fissure (the beginning of the descending horn of the lateral ventricle). Neither of these lobes is fixed to the corpus callosum, while this latter structure projects and yields a free border. Both lobes possess distinct and constant fissures,—the hippocampal for the temporo-sphenoidal and the calcarine for the occipital,—which correlate to important central structures. These fissures tend to relax the firmness of the cortex, a tendency still further aided by the deep parieto-occipital and collateral fissures. The median surface as it joins the outer is marked by several sulci besides the parieto-occipital. Such sulci are scarcely ever seen in the frontal lobes.

We are prepared to learn that the greatest variability exists in the sulci and convolutions of this portion of the cerebrum, particularly in the occipital portion, which being the last to be formed (both in the individual and in the species) is the most liable to slip back in its detail of formation. In a word, the principle of reversion finds illustration in the variations of the sculpturing of the cortex.*

It is true that great variation also exists (see Weinert on supra-orbital convolutions in different races: *Med. Jahrbücher*, xix., 1870) upon the under surface of the frontal lobe at its outer portion, with reference to the arrangement of the inner, middle, and outer convolution (tri-radiate of Turner) with the transverse basal convolutions. But these exist in less degree than those already noted.

The value of the fornix as a means of union between the base of the brain and the temporo-sphenoidal lobe is enhanced when we remember that the dentate convolution is an outgrowth from the fornix behind, according to Schmidt (*Zeit. für Wissenschaft. Zool.*, xi.), while fibres pass from the anterior column of the fornix to the septal area in front. It is by no means a rash statement that the calloso-marginal sulcus is first determined not by the corpus callosum, but by the striated body, and possibly by the septal area aided by the aberrant fibres of the fornix, while we know that the hippocampal sulcus is fixed by the dentate convolution and fimbriated body. Now, the hippocampal sulcus is continuous with the calloso-marginal over the posterior free edge of the corpus callosum, and in congenital deficiencies of this commissure it is probable that the median surface of the cerebrum will be found to present a continuous arched sulcus from the base of the brain in front to the base of the temporo-sphenoidal lobe behind.

In studying the brains of idiots we find that the most constant among the smaller convolutions, according to Marshall (on a brain of a Bushwoman and of the brains of two idiots of European descent: *Philos. Trans.*, 1864, 501), are the three frontal convolutions, the supra-marginal and angular convolutions, the temporal convolutions on the outer side of the cerebrum, and the marginal, calloso-marginal, and annectant convolutions with the quadrate and cuneate lobules on the inner or median side.

The most inconstant are the outer orbital and the occipital convolutions. Thus the parts influenced by the presence of the basal ganglia are the most constant, while those remote from these are subject to great variation.

Among other features of the brain of the idiot may be mentioned the reduced size of the island of Reil and of the striated body,† the former being without convolutions, and the latter having associated with it a small

* The constancy of the calcarine fissure in the mammalian brain being pronounced in lower types of brains of the placental mammals, is in apparent contradiction to the assumed position that the occipital lobe is an outgrowth from the temporo-sphenoidal. It is necessary to go below the placental mammals to obtain the true evidence. In marsupials and monotremes the calcarine fissure is absent, but the dentate fissure is present throughout.

† Also the *flocculus*.

corona radiata. It is evident, from Marshall's figures (although he makes no allusion to it), that the parieto-occipital fissure is remarkable for sending a long anterior branch downward and forward. It is of interest to notice the same branch in the brain of the *chimpanzee.* The great relative development of the first temporal sulcus and its occasional union with the parieto-occipital fissure, and the extension of the calcarine fissure backward to the apex of the occipital lobe, are characters seen in some of the quadrumana.

Such considerations pertain to pathological science, as studies of arrests of development, apart from their general interest. The more we recognize the essential points of structure present in the human brain, even in the lowest races and in idiots, the nearer we are to seizing the essential lesions in mischief coming to the organ itself.

In this connection we give a hint of a most important line of study, the outline of which is even now scarcely discernible, viz., the changes that occur in the cerebrum as effected by age and habit.

How is the training of a feeble-minded child accomplished? As commonly given the answer is, "By improving the quality of its brain." Is it rash to suppose that a brain characterized by arrest of development may actively renew under favoring conditions the process which had ceased? A small striated body and feebly developed corona radiata may become more decided, and, in consequence of this, sulci may make their appearance upon the island of Reil. However we may trace the lines of improvement, it is possible that they depend not merely upon improving the quality of the brain-substance.

Physicians in charge of institutions for training the feeble-minded are in position to occasionally secure the brains of those who had improved under treatment. By careful comparison of such brains with those already recorded, much of interest might be secured.

The following extract from Flower's memoir on the posterior lobes of the cerebrum of the quadrumana (*Phil. Trans.*, 1863, 189) is of significance, and may be quoted in this connection: "Many variations in the construction of the posterior (occipital) lobe must be ascribed rather to pathological changes than to original conformation. Thus in aged and debilitated subjects the posterior cornu is often enlarged and somewhat funnel-shaped, the calcarine process (hippocampus minor) being more or less obliterated, a circumstance arising from the gravitation of the intra-ventricular fluid during long-continued recumbent position. In atrophy of cerebral substance from whatever cause, attended by increased size of the ventricular cavity, the change is usually most strikingly seen in the posterior cornu."

The relation between the brain-tissue and the arteries supplying it is such that the lesions of the former demand a careful consideration of the latter. It has been shown by Pintrac (Traité théorique et pratique des Maladies de l'Appareil nerveux, 1869, ii.) that by far the greater number of cerebral hemorrhages occurred in structures supplied by the anterior and middle cerebral arteries. Out of five hundred and sixty cases collected by him, the occipital lobes, which are supplied by the posterior cerebral, were the seat of hemorrhage in thirty-three instances. Duret (*Archives de Physiologie*, 1873–1874, 316) has shown that the caudate nucleus of the striated body receives fewer twigs from the anterior cerebral than the lenticular ganglia. Hence we are prepared to learn of Broadbent (*Roy. Med. and Chir. Soc.*, rep. in *Med. Times and Gazette*, July 15, 1876) that hemorrhage is apt to occur towards the outer part of the corpus striatum, notably between the lenticular nucleus and the outer white capsule. The clot may here, by its outward pressure, obliterate the convolutions of the island of Reil, though rarely rupturing the cortex.

C. H. Jones (*Medical Times and Gazette*, May, June, 1872, 503, 562), in reviewing the relation between the locality of the morbid foci and the symptoms, has reached the following conclusions: 1st, That the locality of the lesion will be elected by reason of impairments of nutrition already predetermined. 2d, That *pressure*, as illustrated by the presence of large clots of blood, seldom yields special or localized lesions, but coma and general paralysis. 3d, That *irritation*, as from disturbances excited by local change, more or less abruptly induced, results in convulsions, hemiplegia, or paralysis of distinct cranial nerves. 4th, "That morbid states of a given centre may so affect other centres with which it is commissurally connected as to disorder or arrest their function." The acceptance of

the last-mentioned statement explains the difficulty of diagnosing cerebral lesions without an exact knowledge of the minute anatomy of the brain.

According to M. Benedikt (on the Laws of Topog. Diag. in Chr. Diseases of the Nervous System: *Allg. Wien. Med. Zeit.*, 1873; tr. in *Jr. Psych. Med.*, N. S., i., 1874, 34), it is necessary to locate the symptom in its appropriate centre, and not to carry attempts at centralization too far. He esteems highly the fact that a pronounced centre, such as the quadrigeminal mass or a cerebellar hemisphere, may exert a controlling (co-ordinating) influence over the function of an adjacent motor tract. Thus a damage to either of the above structures may lead to paralysis without any motor nuclei being directly involved.

The same writer assigns to Betz, but without reference, the very important statement (if true) that the *claustruna* (*i.e.*, the cerbea as modified at the island of Reil) is the region of aphasia, and that it possesses at its posterior part "a central ganglion" for the hypoglossal nerve.

In conclusion it may be said:

(1) That in seeking for lesions of the cerebrum, the lines of commissural association must be considered.

(2) That in studying arrests of development of the cerebrum, comparison of the brains of idiots and lower races of man and animals should be insisted upon.

(3) That the greatest variations in the cerebrum are seen in the areas of least compactness, the occipital lobe being the most variable.

(4) That careful study should be given to the brains of the feeble-minded who have improved under treatment, and to the possible changes in the arrangement of the parts of the cerebrum under the influence of age, disease, or both.

CASE OF SPINAL PARALYSIS OCCURRING DURING RECOVERY AFTER PARAPLEGIA FROM POTT'S DISEASE.

BY V. P. GIBNEY, M.D.,

Assistant Surgeon to the Hospital for Ruptured and Crippled, New York.

J. W., æt. 3½ years, presented at the Outdoor Department of the Hospital for the Relief of the Ruptured and Crippled, giving a history about as follows:

Considered healthy up to fourth or fifth month of life, though the head was always regarded as unnaturally large, and seemed too heavy for the body. When five months of age he was thrown from a rocking-chair, and no immediate injury was detected; in fact, two months elapsed before the mother's attention was called to anything abnormal. She then noticed a marked tendency to opisthotonos, pain on being handled, and general peevishness. A month or two later she fancied that the spine was "growing out," and applied for treatment, May 8, 1874, the child being then one year old. I could detect no angular prominence of any of the spinous processes, only a uniform antero-posterior curve, which was easily reduced by extension. At the time I regarded it as a case of rachitic kyphosis, and prescribed cod-liver oil and phosphate of lime, giving directions as to the diet. One week later I feared incipient caries of the vertebræ, and applied a spinal brace. The mother became very irregular in her attendance, and I saw the child only once or twice between that time and October 23, when she called because the child had lost the use of its lower extremities. The brace had been left off, and on examination I found a marked prominence in the superior dorsal region, and a rigidity of the muscles of the lower extremities, accompanied with general incoördination of movement. A new apparatus was applied, and a spring to support the weight of the head attached thereto. The mother was assured that the power would be restored in due process of time. Six months later a residual abscess appeared immediately to the right of the transverse process of the tenth dorsal vertebra, running in a comparatively rapid course. Returning control of the extremities was very apparent during this period. The condition of the sphincters of the bladder at the time I failed to note, but from the mother I have since learned that the urine would pass involuntarily.

During the summer of 1875, about ten or eleven months later, the child was walking about by means of a chair, and could even stand alone. The spinal abscess had closed, and there was now present a small perineal abscess, which gave considerable annoyance. In August the mother called my attention to a "turning of the right foot," and on examination there was found almost complete palsy of the right lower extremity, while the faradic contractility was abolished. With the galvanic current a feeble response in the quadriceps was discovered, though this was doubtful.

Electrization was begun, and sickness in the family prevented a regular attendance. The condition of the child on the 30th of October was that of a stout-looking boy, whose general health was reported as very good, with the exception of a slight bronchitis of recent origin. He could stand with a little assistance, resting the most of his weight on the left lower extremity, the foot of which was in marked

valgus, doubtless from an unequal distribution of the weight. The right leg hung apparently powerless. The head seemed large, and the measurements thereof were twenty inches around the largest portion, and eleven inches from tip of one ear to the tip of the other.

The prominence of the diseased vertebræ (fourth to eighth dorsal) was one inch. An oval cicatrix was found on the right of the tenth dorsal vertebra. There is every reason to believe that anchylosis between the bodies of the vertebræ has taken place, and Pott's disease may be considered as practically cured. The child is still under treatment for the spinal paralysis, and the prognosis, I am free to confess, is by no means favorable.

Remarks.—My apology for reporting this case is, that my own interest has been aroused, and that I regard it as one comparatively rare. My opportunity for observing the various paralyses during the past four or five years has been exceptionally good, and I do not remember to have ever seen a case of true spinal paralysis in connection with Pott's disease of the vertebræ. The paraplegia so often attending caries of the spine is not a paraplegia wherein we have flabbiness of the muscles, abolition of reflex excitability, and faradic contractility. Any one who has ever seen a case will readily recall the rigidity of the flexors and adductors, the epileptiform spasm when the limbs are placed in certain positions, the general incoördination, and the strong urinary odor that is emitted from the clothing.

I have talked with two or three of my friends in the city who are regarded as authority in diseases of the nervous system, and they have indistinct recollection of having seen or read of a case similar to the one I have reported.

The etiology of the spinal paralysis is unquestionably, I think, found in the extension of a meningeal inflammation to the parenchyma setting up a localized myelitis of the right anterior column.

Whether the residual abscess, so exceptionally close to the spinal cord, had any influence on the inflammatory process, I am unprepared to decide.

135 E. Forty-Second Street, November 21, 1876.

NOTE ON HYDROBROMIC ACID.

BY J. MILNER FOTHERGILL.

I HAVE just perused with satisfaction the remarks of Dr. McLane Hamilton on this useful therapeutic agent. His cases are very illustrative of its action. A friend told me the other day that he had prescribed it for the nervousness and flushings of the change of life with excellent effect.

I may add that it is most useful in that form of excitable neurosal palpitation found in women along with general nervousness. In such cases, given with quinine, and, in some cases, a small dose of digitalis where the heart is weak, it produces the most satisfactory results.

It also forms part of a really charming cough-mixture, efficient as well as palatable. The form is as follows:

℞ Sp. chloroform., ♏ xx;
Hydrobromic acid, ʒss;
Syr. scillæ, ʒi;
Aq. ad ʒi, ter in die.

The dose, of course, is reduced for children. Any other acid in this mixture is very agreeable, but the hydrobromic acid, from the effect of bromine upon reflex mechanism, allays the cough often so troublesome. It possesses much the same action as opium, without the ill effects upon the digestive organs or on the bronchial secretion.

London, W., November 14, 1876.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. GROSS, OCTOBER 4, 1876.

Reported by William A. Johnston, M.D.

EXCISION OF THE HEAD OF THE HUMERUS.

THE patient now before you is a medical gentleman, 26 years of age, who, three years ago, was thrown from his buggy on his right shoulder, receiving a severe contusion, followed by the usual symptoms of inflammation. You observe a cicatrix situated about the middle of the arm, at which, as we are informed, there was a continuous discharge for a year and a half, beginning soon after the accident. After the parts healed the joint was anchylosed. About six months ago the same shoulder received a similar injury. You now notice two fistulous openings upon the anterior surface of the injured shoulder, from which there is a constant discharge of a fetid character. On introducing the probe, I find that one of these fistulous tracts leads directly into the articulation, while the other inclines upward towards the coracoid process. By firmly grasping

the scapula, and at the same time moving the arm, you observe the joint has lost its functions. The deltoid muscle is wasted from the joint effect of disease and the want of exercise.

The patient's general health is good. He tells us he never had disease of any kind, and knows of no hereditary taint.

Anchylosis is generally produced by inflammation of the synovial membrane, with plastic deposits upon its surface. It may arise from all kinds of injuries. In this patient there was a contusion giving rise to synovitis, and an effusion of plastic matter. This matter became organized, bands of adhesion formed, and the joint became fixed and immovable. The inflammation extended to the periosteum, and necrosis and absorption of the articular cartilages took place. The glenoid cavity was effaced, and the tissues within and around the joint became roughened and bound down by organized plasma.

When the anchylosis is of recent standing, when the adhesions are weak and of limited extent, and when the joint is not too complicated in its structure, a reasonable hope of breaking up the morbid adhesions and re-establishing the functions of the joint may be entertained; but under opposite circumstances it is useless to resort to any thing short of excision as likely to be of any permanent benefit. Necrosis and caries of the head of the humerus and contiguous surface of the scapula are the most common reason for resection, and render the operation necessary in this case. The mortality from excision of the shoulder- and elbow-joints, even in traumatic cases, is comparatively insignificant, while excision of the wrist and hip very frequently proves fatal. It is more dangerous in the knee than in the hip, and from excision of the ankle-joint very few recover. Excision of the head of the humerus was performed successfully by Prof. Warren, formerly of Baltimore, to relieve the pain caused by pressure of the head of that bone upon the axillary plexus of nerves, in an unreduced dislocation. The late Prof. Blackman, of Cincinnati, performed a similar operation with equally happy results on account of rheumatic arthritis.

There are several methods of exposing the bone. Some prefer the V-shaped incision, others the flap operation. The elder Prof. Pancoast makes a curvilinear incision. These methods afford the surgeon ready access to the joint, and enable him to effect excision with the greatest facility; but they all have the disadvantage of inflicting severe injury upon the deltoid muscle in consequence of the division of its fibres. The simple vertical incision that I am in the habit of using is free from this objection. The incision is begun just below the acromion process, and is carried down through the belly of the deltoid muscle to within a short distance of its inferior attachment. After the parts are exposed it is of primary importance to detach the periosteum, which is so indispensable to the formation of new bone. We must avoid cutting the long head of the biceps muscle. You notice, as I cut down upon the parts, that there is considerable hemorrhage, due to the indurated condition of the tissues from plastic deposits, which prevent retraction of the vessels. You will observe in this case the use of acupressure in controlling hemorrhage. After the tissues are all separated by rotating the arm, there is little difficulty in protruding and removing the head of the humerus. Other things being equal, the smaller the portion of bone removed, the less impairment of function will there be liable to follow. I find the glenoid cavity effaced, the articular cartilage on the head of the humerus destroyed, and some softening of the osseous tissue. A cold compress will be applied to the wound for a couple of hours. The parts will then be brought together and retained by a few interrupted sutures, an oil-tent being placed in the most dependent part to facilitate drainage. The limb will be firmly secured to the body by adhesive strips assisted by the roller, and suffering relieved by a hypodermic injection of morphia.

[The patient was again before the class, six weeks subsequent to the operation, and on the eve of his departure for his home in California. The parts were in a good condition, the patient having suffered no untoward symptoms. The wound was closed, with the exception of a small point at the most dependent part, from which there was still a slight discharge of a healthy character.—W. A. J.]

SURGICAL CLINIC OF PROF. GROSS, OCTOBER 14, 1876.

EPITHELIOMA OF THE BREAST.

You observe that the right breast of this patient, L. A., æt. 35 years, unmarried, is completely effaced, and in its stead there is

a large raw ulcerated surface, from which there is a constant discharge. There is a slight projection of the nipple. The pectoral muscles are rigid. The patient complains of an occasional pain. I find no enlargement of the glands in the axilla, but in the lymphatic chain along the lower border of the great pectoral muscle are hard nodules, indicating their secondary involvement by absorption of the cancerous material. This disease first made its appearance seven months ago, in the form of a small wart-like excrescence, which gradually involved the whole gland; and four months later the overlying structures were undermined and broke down, leaving this large scarlet-red ulcer. The patient sleeps well, her appetite is good, and her general appearance indicates a fair condition of the system.

This rapid destruction of tissue and secondary lymphatic involvement indicate malignancy.

Scirrhus of the breast is not unfrequent, especially between the ages of forty-five and fifty years. It rarely ulcerates under twelve months, and usually the nipple is retracted.

This is an epithelioma, exactly like the sore frequently seen on the lip, and characterized by the development of epithelial cells. It is a form of disease rarely seen at this age and in this situation. It is most frequent at the mucous outlets.

Epithelioma is more common in men than in women, the latter being more liable to scirrhus. The pain is like that of scirrhus, sharp, darting, or pricking, and often extending to the surrounding parts. Generally there is no lymphatic involvement until after the eighth month. The secondary lymphatic involvement depends upon the absorption of the cancerous material, and is of the same nature as the original disease, though it is often some distance from it. The disease here has advanced too far to warrant an operation, therefore our treatment can only be palliative. We will pay proper attention to the secretions, and give anodynes to relieve pain and procure rest. I shall order as a local application a strong solution of acetate of lead, and around the margin of the ulcer to be painted with diluted tincture of iodine.

It is stated that cinchona cultivation is being enthusiastically entered upon in Burmah by the natives.

TRANSLATIONS.

Recent Investigations into the Action of Jaborandi.—The *Centralbl. f. Med.*, Nos. 24 and 25, 1876, contains an abstract of recent investigations by Stumpf, Pilicier, Craig, and Schwahn, regarding the action of jaborandi upon men and animals. Stumpf's conclusions are based upon fifty cases of persons with or without fever, to whom the drug was administered in the form of infusion taken cold, the patient being lightly covered. The excretion by lungs and skin in forty-four cases varied from 98 to 895 grm., the average being 474 grm.; while patients treated at the same time in a precisely similar manner, only without the administration of jaborandi, showed an average loss of 90 grm. The increased secretion of saliva, which persisted for a longer time than the diaphoresis (the latter lasting two hours and seven minutes, the former two hours and eighteen minutes), amounted on an average to 258 grm. The maximum was 560 grm., the minimum 39 grm.

Analysis showed the saliva to contain less organic matter and sulphocyanide of potassium, while, in most instances, the salts were increased, so that, taken altogether, the fixed constituents of the saliva remained in about the normal proportion, or, in one case, exceeded this. In three-fourths of the cases the nasal and lachrymal secretions were increased. The bronchial secretion was also somewhat increased. No qualitative change was observed in the urine; quantitative examination was not made. Almost invariably, jaborandi lowered the temperature of persons without fevers; less frequently those suffering from fever. The average reduction was 51° C. in the former, and 7° in the latter. This reduction began frequently before the commencement of the stage of sweating (enlargement of the cutaneous vessels). The pulse was almost always quickened; the respiration sometimes increased, sometimes decreased in frequency. Among the disagreeable effects were nausea, more rarely vomiting. Somnolence and headache were occasionally observed, and, in three cases, painful micturition.

Pilicier speaks less favorably of jaborandi, especially as regards its effect upon the skin, which he found very moderate. (The quantities were not measured.) The

sweat was at first acid, later neutral, and frequently somewhat alkaline. The sialogogue effect was almost always present; the secretion was wanting in sulphocyanide of potassium. The temperature sank in the course of two to three hours from 3° to 1° C. In rabbits, dogs, and cats, jaborandi caused increased secretion of saliva and tears, together with diarrhœa and increased intestinal peristalsis. In the two latter, vomiting, frequent urination, and trembling occurred. Large doses in the case of dogs and cats brought on symptoms of poisoning, with dyspnœa, slowness of pulse, and slight convulsions, and death in the course of a few minutes.

Gastric fistulæ showed increased secretion of the juices of the stomach, even when the saliva was not swallowed. The antagonism between jaborandi and atropia showed itself in various cases most strikingly. Contrary to Vulpian's experience, Pilicier found the biliary secretion in rabbits diminished after injections of jaborandi. In common with that investigator, however, P. found diastolic cessation of the heart to result in frogs. Pilicier thinks there is a close resemblance between the actions of jaborandi and muscarin.

Craig examined pilocarpin, the alkaloid of jaborandi, which he found active. It is a semi-fluid, yellowish in color, and soluble in water. It lacks the acid reaction and peculiar odor of the jaborandi infusion. One grain of the alkaloid is equal in effect to a drachm of leaves.

Schwahn found the effect of jaborandi upon the saliva of the parotid in the dog unchanged after section of the chorda together with the neighboring portion of the sympathetic. An opened vein in the parotid poured out an increased quantity of blood under the influence of the drug, also observed after section of the chorda. In rabbits a large quantity of lumpy fæces were spasmodically ejected. A greatly increased peristaltic action of the whole intestine was also observed. x.

Anatomical Alterations in Chorea.—The origin of chorea has for some time past been believed to lie in alterations of the central nervous system. Rokitansky was the first who demonstrated hypertrophy of the interstitial tissue in the brain and spinal cord, and the researches of Meynert assigned the gray substance of the great central ganglions as the seat of the disorder. Dr. Elischer, who had occasion to make an autopsy of a woman who had suffered from chorea and who had died of puerperal endometritis, proved clearly that not only in the peripheral nerves (sciatic and median of the arm), but in the cord and brain, this hypertrophy of the connective tissue existed. The nervous elements were atrophied, opaque, the cylinder axis had disappeared, there were limited extravasations of blood, plethora of the capillaries, and an abundant production of granular and fusiform nuclei. In the lateral and posterior columns of the cord the nervous tissue resembled a coarse felt crowded with these nuclei.—*Le Mouvement Médical*, 1876, p. 624; from *Annales Méd. Psycholog.* x.

Anæsthesia of the Larynx before Operation.—Dr. Thaon, of Nice, gives (*Le Prog. Méd.*, 1876, p. 704) the following account of the procedure of Türk and Schrötter, as practised successfully by himself. There are some patients who suffer with such acute sensitiveness of the larynx as to render any operation in this region exceedingly annoying and difficult. The following method, if followed carefully, will prevent this extreme sensibility. If the operation is to be performed on a given morning, the patient's laryngeal mucous membrane should be touched the evening before, at seven o'clock, with a pledget of charpie dipped in chloroform. This should be repeated twelve times, and will bring on congestion favorable to the subsequent application. At eight o'clock the same operation should be repeated, a saturated solution of chloride of morphia being substituted. Care must be taken that this is not swallowed. By way of antidote, the following gargle should be used between each application: Tannin, gr. 160; alcohol, ʒiv; aq. destillat., ʒxij. Towards midnight the patient should be visited, to see that poisoning by morphia has not taken place. By seven A.M. the larynx is usually insensible. If not, the operation may be repeated. x.

The Action of Antimony.—Gähtgens (*Centralbl. f. Med.*, No. 18, 1876), having conceived the idea that the preparations of antimony might be found to exercise an influence in increasing the transformation of nitrogenous constituents within the body, undertook a series of experiments with the view of ascertaining the facts. G.'s experiments were made upon two dogs, to which antimonial tartrate was adminis-

tered after several days' fasting. In both cases the amount of nitrogen excreted in the urine was found to be very markedly increased. x.

INTERNAL USE OF SALICYLIC ACID.—M. Cassan, observing the slight solubility of salicylic acid in water and alcoholic liquids, sought and found an adjuvant, the citrate of ammonium, which aids greatly in the solution of this substance in water.

The following are two of his formulæ:

℞ Acid. salicylic., ʒi;
Ammon. citrat., ʒss;
Spiritus vin. gal., fʒvijss;
Aquæ destillat., ad fʒvi.—M.

This solution contains about five grains of salicylic acid to the tablespoonful.

℞ Acid. salicylic., gr. xv;
Ammon. citrat., gr. xxx;
Syrupi simpl., fʒviiss;
Aq. destillat., ad fʒiv.—M.

TREATMENT OF ACNE.—M. Rodet, of Lyons, prescribes the following treatment in acne. Friction is to be made every evening over the acne papules, with the following ointment:

℞ Adipis, ʒv;
Sulphuris,
Tannin, āā gr. viij ad xv.—M.

In the morning the face is to be bathed with warm water to which a little bay rum has been added, the proportion being increased from day to day until it amounts to one-third. M. Doyen, of Lyons, recommends bathing with the following:

℞ Aq. destillat., fʒx;
Hydrarg. bichlor., gr. xxx;
Tinct. lavanduli, fʒiiss.—M.

Mr. Hardy uses this formula:

℞ Aquæ, fʒx;
Potassii sulphuret.,
Tinct. benzoini, āā ʒiiss.—M.

Two teaspoonfuls in a glass of warm water to be used externally. For the treatment of acne erythematosum (*couperose*), Hardy suggests the following:

℞ Hydrarg. protiod., gr. iss ad. ii;
Ung. aq. rosæ, ʒiv.—M.

In the fluid and concrete forms of sebaceous acne, Hardy uses the following glycerole:

℞ Glycerin, fʒxv;
Aquæ rosæ, fʒiiiss;
Tannin, ʒi.—M. Sig.—Use externally.—*La France Méd.* x.

STRETCHING OF NERVES IN THE TREATMENT OF CENTRAL NERVE-LESIONS (V. Nussbaum: *Centralblatt für Chirurgie*, 1876, No. 39).—As a proof that this mode of treatment can be used with good effect, not only when the affection is peripheral but also when it is central, Nussbaum reports the following case. The patient, a man aged 35 years, fell from a height eleven years previously, and as a result suffered complete paralysis of the lower extremities and the sphincters and intense chronic cramps of the legs. After the failure of other methods for the relief of these cramps, the crural and ischiatic nerves of the right side were exposed by incisions and drawn out with the bent finger, and strong traction made upon them. The chronic contraction upon the right side immediately ceased. The operation and the after-treatment were performed according to the method of Leslie, and both wounds were entirely healed at the end of two weeks. The same operations, with the same results, were then performed upon the left side. After the disappearance of the chronic cramps, the patient, who had previously been bed-ridden, was able by the aid of supports and crutches to move himself about. W. A.

THE ACTION OF ASTRINGENTS ON THE BLOOD-VESSELS (Rosenstorn: *Centralblatt für die Med. Wissenschaften*, 1876, No. 35).—These experiments were made by bringing solutions of nitrate of silver, acetate of lead, tannic, gallic, and pyrogallic acids, sesquichloride of iron and alum, in contact with the mesentery of the frog, and determining with the micrometer their effect upon the vessels which were thus subjected to their influence. The solution of the nitrate of silver was of a strength of one-tenth per cent., and its effect in producing contraction of the vessels was the most remarkable. The contraction came on after the expiration of a few seconds, and frequently diminished by one-half the calibre of the arteries and veins, but was less as regards the capillaries.

Permanent cessation of the circulation of the blood in the affected capillaries occurred, but in the arteries and veins it was sometimes but momentary. Contrary to expectation, tannic acid exerted an opposite influence. Under its influence, arteries, veins, and capillaries became distended, and showed themselves distended with blood-corpuscles. These enlarged vessels immediately contracted again upon the application of the solution of the nitrate of

silver. The effect of gallic and of pyrogallic acid was exactly similar to that of tannic. The action of the acetate of lead was the same as that of the silver salt, but less marked. Almost without exception, white coagula, formed of colorless blood-corpuscles, made their appearance in the vessels. The solution of the perchloride of iron, in the strength of ten per cent., had no appreciable influence, but when fifty per cent. in strength, some diminution of the calibre of the vessels was produced, but less than followed the action of the acetate of lead. This contraction was limited to the arteries and veins, and was accompanied by a dilatation of the capillaries.

The experiments with a solution of alum gave negative results, as its action was not the same in different cases. To do away with reflex action, the spinal canals of the frogs used for the experiments were exhibited and the action of the heart withdrawn, but the local action of the solution named above remained the same. From the results of these experiments, an astringent action —*i. e.*, power of causing contraction of the tissues—can be ascribed with certainty only to the nitrate of silver and acetate of lead, while it is doubtful how much effect the solution of alum and the chloride of iron possess.

As to the tannic and its allied acids, they certainly do not have this power. W. A.

Employment of Tannic Acid Injections in the Parenchymata (*Bull. Gén. de Thérap.*, 1876, v. ii. p. 191; from *German Medico-Chirurg. Rev.*, April, 1876, p. 300).—The uselessness of injections of alcohol into cancerous tissues decided Dr. Schwalbe to employ tannic acid in these cases. This acid possesses the property of destroying the cancer-cells and favoring absorption of the products. The author has attempted the use of this substance in injections into various tumors, and he has seen a malignant lymphoma of the neck diminish considerably under its influence. A tumor as large as a hen's egg, implanted upon the periosteum of the lower jaw, and the development of which had been very rapid, necrosed quickly under the influence of these injections, and soon fell off. Dr. S. has also used injections of tannic acid in neuralgia of the trigeminal with painful foci. These disappeared as if they had suddenly been struck with mortification, such as occurs in the pulp of a carious tooth. X.

Non-Existence of Mucus in the Urine.—M. C. Méhu contributes an article on this subject to the *Bull. Gén. de Thérap.*, 1876, v. 2, p. 161, in which he shows that the substance usually known as urinary mucus consists, ordinarily, merely of epithelial or organic detritus, sperm, pus, phosphates, urates, or a mixture of these. In other words, that substance visible to the naked eye, and designated *mucus*, is nothing more than the normal or pathological sediment of the urine. Its aspect varies infinitely with the nature of the elements which go to make it up, and with the acid or alkaline condition of this liquid. Mucus contains mucine; the urine does not contain this substance. Finally, solutions of mucine, like those of sugar or albumen, offer nothing appreciable to the eye. It is, therefore, erroneous to give the name *mucus* to a detritus epithelial or otherwise in nature. X.

The Warm Bath as a Prophylactic against Puerperal Fever.—Dr. Konitz, of Warsaw (*Wien. Med. Presse*, 1876, p. 1377), gives an account of two cases in which the warm bath employed immediately was followed by beneficial results. The first case, a multipara, who had lived some time in Russia, where she had previously used the bath, insisted, in spite of the doctor's arguments, upon using the hot bath at a temperature of 100° F., into which she was lifted immediately after the removal of the placenta. After remaining in it some little time she was removed to a warm bed, and soon fell into a sound slumber, from which she awoke to a speedy convalescence. The second case was also under Russian influence, and was a primipara whose confinement took place during an epidemic of puerperal fever, and whose midwife had been exposed to the contagion. She was placed in a hot bath, and recovered without an untoward symptom, while all the puerperal women in the neighborhood were dying or suffering from fever, or, at least, para- or peri-metritis. Konitz, therefore, urges the use of the hot bath after confinement, together with the administration of ergot and quinine. X.

Poisoning by Digitalis.—Köhnhorn (*Centralbl. f. Med.*, 1876, p. 496; from Eulenberg's *Vierteljahrschr.*, xxiv, p. 278) gives two cases in which digitalis-leaves were taken with intent to prevent military conscription. One man took 13.7 grammes within four weeks, and died sud-

denly one day upon rising, having previously fainted when he rose on several occasions. The symptoms in both cases were those of severe gastric catarrh, which, however, was very striking from its stubbornness, from the appearance of illness presented by the patient, from the absence of fever, and from the progressive decrease in frequency of the pulse. Later, difficulty of swallowing supervened, and, shortly before death, singultus. Post-mortem examination showed lack of blood in the brain and larger vessels, thin, fluid blood of a dark cherry color, and injection with occasional ecchymoses in the mucous membrane of the stomach and small intestine; otherwise no organic disease. The presence of digitalis was established not only by chemical but by microscopical means, small particles of the digitalis-leaves being found in the contents of the stomach.

x.

Shoulder Presentation in a Fœtus past Term; Tetanus Uteri; Version; Death.—Dr. T. Peszkowski (*Wien. Med. Presse*, 1876, p. 1351) gives the following case. He was called in consultation in the case of a multipara whose previous labors had been normal. Examination showed the shoulder presenting in the second position with descent of the right arm, which was exceedingly large. The patient was very much exhausted; there were no pains, but complete tetanus of the uterus. The child was dead. From the history given it was evidently hypermature. Peszkowski's colleagues recommended version, to which he demurred, because with so large a fœtus and such an unfavorable position, together with tetanus of the uterus, but little hope could be entertained for a result favorable to the mother. He recommended embryotomy. Peszkowski, however, was overruled, and attempted to perform version. The patient was etherized in order to overcome the tetanus uteri, and after twenty minutes Peszkowski succeeded in delivering the left foot as far as the knee. He then insisted that it was evidently impossible to proceed further with the version, but that there was still time to deliver by embryotomy, but being again overruled he declined to participate further in the procedure. The other physicians then continued the attempts to deliver by turning, but in vain. During the operation, however, rupture of the uterus took place. At length embryotomy was agreed upon, but too late. The patient died just after delivery had been completed.

The lesson to be learned from this case is, according to Peszkowski, that that operation should be chosen which, after due consideration of the position of the fœtus and attending circumstances, seems most advisable, and that, after having once been chosen, the operation should be completed, and not substituted by another when half accomplished and not likely to succeed. Under these circumstances the patient is apt to be exhausted, and the second operation, although perhaps the best, is likely to fail also. x.

Molluscum Contagiosum (Lukomsky: *Virch. Arch.*, Bd. lxv. p. 145).—Although molluscum contagiosum is by most writers classed with tumors of the sebaceous follicles, an examination of tumors of this kind, varying in size from a millet-seed to that of a pea, and taken from the skin of the penis and prepuce, showed that these follicles were not involved, but that it was solely an affection of the rete Malpighi of the skin. The so-called "molluscum bodies" which are found in the cheesy contents of the tumors are not of a parasitic nature, but are developed from cells which previously exist in the mucous layer of the rete.

In the corium which borders on the bases of the tumors were found, in addition to the usual cells, also large wandering cells. It may be the case that such cells find their way into the rete, and then under certain conditions develop into the characteristic elements of this disease. w. a.

Spontaneous Dilatation of the Heart, and its Consequences (F. Ganghofner: *Centralblatt für die Med. Wissenschaften*, 1876, No. 32).—Ganghofner confirms anew the occurrence of spontaneous dilatation of the heart, together with relative insufficiency of all the openings of that organ. As a cause for the existence of the first, he adduces anæmic and chlorotic conditions with congenital contraction of the aorta. As an illustration, he gives the history of a young girl in whom during life symptoms of insufficiency of the cardiac valves with attacks of palpitation had been observed. At the post-mortem examination no alteration of the valves was found, but only dilatation of the heart, together with changes of the other thoracic and some of the abdominal organs. w. a.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 9, 1876.

EDITORIAL.

THE MEDICAL SERVICE OF THE REVOLUTION.

OF the members of the American medical profession who are interested in out-of-the-way purely literary or historical researches, Dr. Toner, of Washington, is among the most active. Possessed of probably, next to the National Library, the best collection of medical Americana extant, having a natural bent towards historical studies, no wonder that he has entered upon the somewhat neglected field of the history of the American profession. Some of his productions have been monuments of labor; but none, to our thinking, has possessed the interest of his address recently delivered before the Alumni of the Jefferson Medical College, and now appearing as a book of nearly one hundred and fifty pages, under the title of "Medical Men of the Revolution." In it we may learn how much of labor our profession endured, and how much of sacrifice members of it made, not merely in the collection and care of the wounded, but also as patriots in legislative halls, or on the most dangerous of services, and as leaders in the thickest of the battle. It was to Drs. Joseph Warren and Samuel Prescott that the inhabitants of Concord owed their knowledge of the march of the British troops; and on the same day it was Dr. John Brooks who led the company of militia which so stoutly resisted the British onset at North Bridge. At Bunker's Hill there were present in various capacities thirty-one medical men, —some in the ranks, some as line officers, and some in their professional capacity; and the most famous of them all sealed his patriotism with his life's blood.

There does not seem to have been any regular plan of organization in the development of the medical department; but, as in other branches of the service, each step was the result of the exigencies of the moment, and was not always wisely taken. The establishment in Charlestown of the first hospital followed at once the battles of Lexington and Concord, and constituted the first organized medical service of the Revolution. Hospital after hospital appears to have been founded, and subsequently regimental surgeons and surgeons' mates were appointed. The rank of the hospital surgeon was at first made higher than that of the regimental surgeon. Different appointing bodies conferred commissions, and a condition of general discontent, if not of actual chaos, seems to have prevailed. On the 19th of July, 1775, Congress attempted to bring about a better state of things by an act giving form and consistency to the medical service. Dr. Benjamin Church was at once appointed director of and physician in the hospital. A man of fine address, and of high education and skill, distinguished among the earliest patriots for his ardor and enthusiasm, a member of the Provincial Congress of Massachusetts, he seemed eminently fitted for the position. To the astonishment, however, of every one, not many months subsequently he was detected in corresponding by cipher with persons inside of the enemy's lines. Shortly after his conviction by court-martial, Dr. John Morgan was elected as his successor. The success which had attended what is now the Medical Department of the University of Pennsylvania, under the guidance of Dr. Morgan, seemed a guarantee of his executive ability. Nevertheless, under his administration harmony did not prevail, and Congress was almost besieged with complaints, petitions, and suggestions. Much legislation was indulged in, but, being crude, imperfect, and often even contradictory, the natural result of the inexperience of the

legislators and the multiplicity of interests concerned, little good was accomplished. In October, 1776, the drift of public opinion was shown by the division of the United States into two medical districts and the appointment of Dr. William Shippen as medical director of the Southern Division, with rank equal to that of Dr. Morgan in the North. The growing unpopularity of Dr. Morgan or the growing popularity of Dr. Shippen was more signally evinced in January, 1777, by the summary dismissal from the service of Dr. Morgan. As shown by the present evidence, this dismissal appears to have been not only arbitrary but unjust: it is possible, however, that it was expedient. Indeed, a Congressional committee of inquiry subsequently exonerated Dr. Morgan, but justified the dismissal as demanded by public expediency.

In April of the same year, a series of medical regulations based upon those of the British army were adopted by the national assembly. Dr. Wm. Shippen was appointed director-general of all the hospitals. From this time may be said to date the efficient organization and the comparatively harmonious period of the medical service of the Revolution. Struggling against the innumerable difficulties of excessive poverty and of frequent defeat, by labor multiplied on the field and in the hospital, by suffering endured, and by steadfast courage, it certainly won at least the simple, yet highest, expression of award, "She hath done what she could."

Some years since there appeared in one of the American professional periodicals—the *Boston Medical and Surgical Journal*, we think—an article on the great virtues of the Ichthyocolla Spaldingiensis. Subsequently, from the same pen, if we are not misinformed, were published in this journal some letters burlesquing the discoveries of Salisbury and the extravagant claims of the possessors of one-fiftieth immersion lenses. Both of these articles were taken in sober earnest across the water, and gave rise to many grave doubts and expressions of wonder and disapprobation. All this did not exhaust our faith in human nature. But now we are despondent: we shall never again indulge in playfulness or irony: our cotemporary, the publisher of the Pine Ridge letters, has taken in serious earnest our recent jocosity about the superiority of the Philadelphia to the New York doctors.

The *Record* is equally severe in condemning our serious expressions of congratulation and thankfulness for the sanitary condition of the city during the summer, and finds especial fault with the sentence, "This summer has been extraordinarily healthy, and the water supply and the general hygienic arrangements have stood the very severe test so well as to reflect credit upon the city authorities and to demonstrate the great value of the homestead method of living practised in this city."

It is too late to enter into a controversy upon Centennial matters: the interest is gone. We shall not even waste space with justifying our former editorial. The facts that during the past summer, notwithstanding the sudden, unprecedented, and enormous increase of the population of our city, its mortality rate was much less than that of New York, and that, whilst in New York the Croton water was very bad, and so deficient as to call forth editorials, not only from the daily press, but from the *Medical Record*, praying for relief, in this city there was an endless supply of water containing only 1.74 parts of sewage to the million, ought to enable even the writer of the editorial in the *Record* to suspect why we congratulated ourselves that all was as well as it was.

The recent English expedition to the North Pole, although fitted out with all

the care that modern science is capable of, was marked by a very fatal outburst of scurvy in the sledge-crews. It now appears that, in order to save weight, no rations of lemon-juice were taken by the sledge-parties. As no other cause for the suddenness of the outbreak is apparent, it would seem that the disease was kept at bay on shipboard so long as the men received their daily ration of lemon-juice, but that on the ice when this ceased scurvy burst forth.

PROCEEDINGS OF SOCIETIES.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

OCTOBER 4, 1876.

DR. ARTHUR V. MEIGS read notes of "*a case of thrombosis of the cerebral veins.*" A young woman, 20 years of age, who had suffered some time with extreme mental depression and anxiety, was attacked by vomiting and headache, without fever, followed by drowsiness, partial paralysis, and, later, choreic movements, sudden supervention of coma, and death.

The post-mortem examination showed firm clots in the veins of the corpora striata and the venæ Galeni, with extensive softening of the neighboring parts of the brain. The veins of the dura mater and circle of Willis were unaffected.

Dr. J. EWING MEARS read notes of a "*case of lacerated wound of the elbow-joint treated successfully by the antiseptic method of Professor Lister.*" Dr. Mears also read an account of a "*case of peripheral necrosis of the humerus,*" for which amputation at the shoulder-joint was successfully performed, and presented patient.

NOVEMBER 1, 1876.

Dr. JOHN J. REESE read a paper on "*the post-mortem imbibition of poisons: more especially in its medico-legal relations.*" In a late number of the *Times* a correspondent proposed the question whether the embalming a dead body by means of a solution of arsenic injected into the arteries might not be the means of arresting the arm of justice in a case where the death had been occasioned by poisoning with arsenic, the presence of the poison being ascribed to soaking of the embalming fluid employed? This query suggested the propriety of examining into the subject, with the following results:

The *post-mortem imbibition of poisons*, or the possibility of the absorption of a poison into the body after death, is a question of very considerable medico-legal importance. In order properly to appreciate its toxicological bearings it will be requisite to refer to two or three preliminary propositions.

The first of these is that a poison is *active—i.e.*, is producing its deleterious effects—only while it is circulating in the blood. The remainder of the poison, however large the quantity may be, is totally inert *for the time being*. There is only one exception to this, the mineral acids and caustic alkalies, which, as is known, produce a direct destructive action upon the tissue with which they come in contact. Another proposition is, that no sooner does the absorbed poison find its way into the circulation than provision is made for its speedy separation and elimination through the medium of the different organs and tissues, more especially the liver, kidney, spleen, heart, and sometimes the brain and spinal cord; and many of these noxious agents—the mineral poisons particularly—may be readily discovered, soon after their administration, in the different secretions of the body. It is further to be remembered that when the absorbed poison has been separated by the different organs it is not retained by them for an indefinite period of time, but disappears or is reabsorbed in a period varying according to the kind of poison employed and according to the organ involved. Thus, *arsenic* has been detected in the human liver four hours after having been swallowed, and doubtless reaches it much earlier. Experiments on the lower animals go to show that arsenic is very completely diffused throughout the body in one hour and a half after being introduced. The human liver acquires its maximum of saturation, in the case of arsenic, in about fifteen hours after the ingestion of this poison: the quantity thus separated and capable of demonstration rarely ever exceeds two grains. After this period the amount discoverable gradually diminishes. The generally received opinion with regard to arsenic is, that if the individual poisoned survives sixteen or eighteen days there will be little, if any, probability of detecting the poison in the liver after death. As the vast majority of cases prove fatal within eighteen hours, the toxicologist has nearly always the opportunity (which he should never neglect) of discovering the metal in the liver and other organs of the body. This leads to the third proposition, which is that one of the very strongest proofs of death by poison is *not* the detection of the alleged poison in the stomach, since there may always be a possibility of its having been designedly introduced there after death, but its discovery in the absorbed state in the liver, kidneys, spleen, and other organs; the presumption amounting to almost an absolute certainty that the noxious substance thus detected was administered during life.

Keeping then in mind the fact that discovery of the absorbed poison in the tissues and organs of the deceased is regarded as irrefragable proof that the said poison was administered *during life*, it becomes a most interesting and important subject of inquiry, Is it possible for a poison to get access within a human body *after death*, and produce appearances in that body similar to, if not identical with, those resulting from swallowing the same poison during life?

There are only two methods by which a dead human body can receive a poison into itself: one, the *accidental*, as when, after burial in a soil that may chance to be impregnated with a poisonous material, in process of time, owing to the decay and disintegration of the coffin, the animal remains come into immediate contact with the poisoned soil; the other method the *intentional*, when the poison in solution has been purposely introduced through the œsophagus into the stomach or into the rectum, or hypodermically into the cellular tissue, or finally into the blood-vessels, as in the process of embalming, so called.

As regards the first of these methods, this would not be possible in the case of arsenic, since this is only present in cemetery soils in an insoluble condition. As regards the second method, the question is, whether it is possible for a poison existing in the stomach at the time of death (and the death not necessarily due to the poison), or introduced into the body after death, to be diffused through the body by imbibition, so as to be discovered *in the organs* by chemical analysis. Such a result is most certainly possible; and it is easily explained on the well-known physical law of *osmosis*.

Orfila's experiments show that solutions of arsenic, etc., injected into the stomach or rectum after death, are imbibed slowly and gradually through the coats of these viscera into the neighboring organs, affecting first and chiefly those nearest the stomach and rectum.

It needs no argument to show how easily the legal physician might be deceived in a case of this character, mistaking the effects of a simple imbibition or soaking of a poisonous solution which had been introduced designedly into the stomach or rectum after death, and very naturally attribute the results to poison really absorbed during life, and regard them, therefore, as affording unquestionable proof of the alleged crime. A case occurred in one of our Western States in which the suspicions were exceedingly strong that the poison had been thus designedly introduced after death for sinister purposes.

Dr. George McCracken, of this city, has made some experiments in this line recently, confining these for the present to the three poisons, arsenic, tartar emetic, and corrosive sublimate, injecting strong solutions of these mineral substances into the stomachs of dead animals, then burying them beneath the ground, and disinterring them at different periods of time, so as to note the difference of result, as dependent on the length of time of burial. From these experiments he deduces the two following conclusions: First, if a solution of either arsenious acid, tartar emetic, or corrosive sublimate (and this is doubtless true of all other metallic solutions, and presumably true of the organic poisons likewise) be injected into a dog's stomach after death, it passes by osmosis through the coats of this organ into the adjoining viscera, and may be discovered in three weeks, by chemical analysis, in the spleen, the liver, and the left kidney; but not in the right kidney prior to the fifth week. The second conclusion is, that the arsenic solution penetrates through the stomach more rapidly and more completely than the other two substances employed.

In conclusion, the important practical question to be settled is this: Is it possible in an unknown case of poisoning, where the whole issue depends on the chemical discovery of the poison in the tissues of the body, to distinguish between poison really *absorbed* during life, and that which has been merely *imbibed* after death?

In reply, Dr. Reese would say that, if the opportunity were given to make a careful comparative analysis of the *interior* of the organ—the liver, for example—with the exterior of the same organ, especially if the examination were made not long after death, and poison were discovered in the interior as well as the external part of the organ, he should be disposed to regard it as evidence of really absorbed poison. But if the poison were found on the exterior alone, it should be regarded as a case of post-mortem imbibition. In a trial for the capital crime of poisoning, not merely proof of the detection of the alleged poison in the stomach should be demanded, nor even proof of its discovery in the organs and tissues of the body, but even farther than this, evidence clear and unmistakable of its detection in the interior of these organs; and farther still,—from what we now know,—in the brain and spinal cord.

REVIEWS AND BOOK NOTICES.

A Practical Treatise on the Diseases, Injuries, and Malformations of the Urinary Bladder, the Prostate Gland, and the Urethra. By Samuel D. Gross, M.D., LL.D., D.C.L. Oxon., Professor of Surgery in the Jefferson Medical College of Philadelphia. Third edition, revised and edited by Samuel W. Gross, A.M., M.D., Surgeon to the Philadelphia Hospital. 8vo, pp. 574. Philadelphia, Henry C. Lea, 1876.

Few diseases cause more inconvenience and suffering than those of the bladder and

prostate; and, if we exclude cases of "stone in the bladder," few are less amenable to treatment, while none, successfully treated, redound more to the reputation of the physician and surgeon. These are therefore always profoundly thankful for information facilitating such treatment. In this instance we are especially indebted to Prof. Gross for permitting his valuable work to be revived, and to Dr. S. W. Gross for making it represent faithfully, as it does, the present state of our knowledge of the subject.

It is much to be regretted that this stage of our knowledge has not yet afforded us the means of a "cure" for chronic inflammation or "catarrh" of the bladder, as it is commonly called, which undoubtedly occurs independent of "stone," prostatic disease, or other cause of mechanical obstruction in men and of uterine displacement in women. Prof. Gross has, however, given us the benefit of an immense experience in the use of those remedies by which the troublesome affection may be partially relieved, and a judicious use of them often obtains excellent results. The appliances for washing out the bladder, as suggested by Dr. Keyes, of New York, and Zeissl, of Vienna, are very simple, and should make this useful method of treatment more commonly practised.

The excellent chapter on *retention of urine*, and its means of relief by catheterism, in which so much improvement has been made within the last ten years, by puncture and aspiration, we think will be found by the general practitioner the most useful in the volume. In it are found important additions by the editor, Dr. S. W. Gross. This gentleman has also contributed new chapters,—Tumors of the Bladder and Prostate,—in which a thorough knowledge of modern pathology is evident. The previously valuable chapters on "Stone" and its treatment have received all the additions which modern improvements, especially in lithotrity, have made necessary. The chapter on "Stricture of the Urethra" is another in which the editor has had an opportunity, of which he has taken advantage, to contribute from his own experience, as well as from that of others who have greatly improved the treatment of this affection since the appearance of the last edition. In no part of the volume have we been personally so much interested as in the remarks upon the mortality after operations on the urethra. Dr. Gross is undoubtedly correct in ascribing the cause of death most frequently to chronic Bright's disease,—the contracted kidney,—in which it is true also that "neither tube-casts nor albumen may be present in the urine," but we believe very much less frequently than is commonly supposed. In consequence of the very small quantity of albumen and few casts usually present, they are often overlooked by resident physicians and others of inexperience, to whom examinations in hospitals are intrusted, when careful examinations would have detected them. No surgeon who values his own reputation or his patient's life should operate on the urethra unless he is absolutely certain, from more than one careful examination, that Bright's disease does not exist.

There are a few trifling matters—modes of expression—belonging to a past period, which it seems to us might have been omitted in a book of to-day. We would ourselves prefer not to speak of "an exhalation of blood," or of an "exhalation of nervous sensibility," or to assign to "irritability of the bladder" almost the importance of a special disease rather than of a symptom. But, as stated, these are trifling points, perhaps matters of taste, and do not detract from the value of a work whose practical excellence should secure it a place on every physician's table. J. T.

Chemia Coartata, or the Key to Modern Chemistry. By A. H. Kollmyer, A.M., M.D., Professor of Materia Medica and Therapeutics at the University of Bishops College, Professor of Materia Medica and Pharmacy at the Montreal College of Pharmacy, and late Professor of Chemistry, etc. Philadelphia, Lindsay & Blakiston.

This work, which is intended by the author to be useful as a sort of small but complete dictionary of chemistry, "to students intending to present themselves for examination," to "persons who have learned the old notation and wish to become acquainted with the modern system," to "those who desire to keep themselves posted on this subject, and who can thus easily refresh their memories without doing so at the expense of their other engagements," has certainly before it a wide sphere of a certain sort of usefulness, which it should in some measure at least succeed in filling. It is a collection of the principal facts connected with the various elements and more important compounds, gathered together in columns, and as a work of very ready reference can be recommended. For instance, under oxygen—the derivation of which word, by the way, is given as *oxus*, acid, and *genesis*, a generator!—we have given its synonyms, history, symbols, and the equations expressing the reactions resulting in its formation; and so for other substances.

In a work, however, such as this we have a right to demand an absence of contradictory and confusing statements; and though those which have struck our eye are such as can readily be altered in a future edition, they convey an idea of inaccuracy for which no cause should have been given. Thus, the author says that "an atom cannot exist alone as such; it must be united with another atom, and the two (or more, as is often the case) then constitute a molecule." Now, so far as regards elementary bodies, of which he is apparently speaking, there are certainly not many

which have more than two atoms in a molecule, while at the same time there are several of which the molecular and atomic weights are identical.

We are also given to understand that the atomicity of an element may vary indefinitely; that the same atom, as nitrogen, may be monad, dyad, triad, tetrad, and pentad; though a more correct view is given in an accompanying table, where nitrogen, though put down as I., III., and V., is not charged with being both artiad and perissad. The tables of reactions, etc., so far as we can see, seem correct; and we have no doubt that, as a sort of ready reckoner, the work will be of service in the annual cramming which takes place here and there before examinations; but for the purposes of study, the stories, though interesting, are altogether too short to be of much service. H. H.

A Treatise on the Theory and Practice of Medicine. By John Syer Bristowe, M.D. Edited, with notes, by James H. Hutchinson, M.D.

This is a work of a little over one thousand pages, into which are compressed the accounts not only of all diseases usually considered in treatises on practice of medicine, but also of some disorders often relegated to surgeons or specialists. The style is clear, the matter and method good, so that the book, although it is built upon no new principle, and contains nothing to claim our especial gratitude, is a good one,—a methodical reflex of the science and art of the day, out of which the student may pleasantly gather what he desires. We find, however, no reason why the practitioner, whose shelves groan with the numerous treatise of recent date on the practice of medicine, should add this to its predecessors. In other words, our judgment is that the author has performed his self-allotted task exceedingly well, but that at the present juncture no professional need existed for this work. The merits of the book will no doubt enable it to elbow for itself a place among the older favorites, and to divide the market with them. We leave it to do this, giving such aid as is furnished by the true assertion that whoever buys this book gets as complete a representation of modern medicine as has been, and probably can be, put inside of one thousand pages of similar size and type.

The Use of the Spectroscope in its Application to Scientific and Practical Medicine. By Emil Rosenberg, M.D. The essay to which was awarded the Stevens' triennial prize for 1876 by the College of Physicians and Surgeons, March 1, 1876. New York, G. P. Putnam's Sons, 1876.

We are glad to welcome this book to our shelves, and take great pleasure in recommending it to all those who are interested in the subject of which it treats. The author has selected and arranged his material well, while the reader is referred to all the more important monographs bearing on the subject, excepting the second part of Vievorald's book, which did not appear until after this was written. We know of no work on the subject, in any language, so well fitted for general use, and hope that it will obtain the circulation it deserves. H. H.

GLEANINGS FROM EXCHANGES.

Resection of the Entire Upper Jaw (*New York Medical Journal*, November, 1876; from *Arch. für klin. Chir.*, xix. 4, 1876).—Braun reports two cases of this operation from the clinic of Prof. Simon. Both were followed by recovery, but death occurred after an interval of three and five months respectively, from recurrence of the disease, which was in one case epithelial cancer (originating in the skin over the nose), in the other small-celled sarcoma of the superior maxilla. Both patients developed great difficulty of vision,—an occurrence not hitherto noted after this operation,—and one suffered the loss of the left eye. The cause of these troubles the author finds in the contact of decomposing pus with the conjunctiva, and again in the injury done to the ophthalmic branch of the trigeminus by accumulation of pus within the skull (basilar meningitis). Chemosis and injection of the lower half of the eye, which have been frequently observed, are due to interference with the circulation by the incisions, and to injury of the infra-orbital nerve, which, by depriving the lower lid of its sensation, allows the irritation of dust or other foreign matter.

All operations hitherto reported may be arranged in three classes: first, cases of resection of the *entire* upper jaw for new growths; second, cases of *partial* resection for new growths, including those in which the entire jaw has been removed in two operations; third, cases of necrosis in which *entire* or *partial* resection has been performed. In the first class there are eleven operations, four of which were fatal (death due to exhaustion in two, pyæmia in one, and apoplexy in one), while seven were followed by immediate recovery. Of the latter, however, *five patients died within three to twenty-two and a half months from recurrence of the disease.* In the second class are five cases, all of which recovered, but were not seen subsequently. Of the third class six cases recovered, and one died, this being the only one in which the *entire* jaw was removed. One patient died a year after operation, from necrosis of the face of the skull and abscess of the brain.

Treatment of Urethral Strictures by Means of Internal Massage (*New York Medical Journal;* from *L'Union Méd.*).—While formerly a thin bougie, after its intro-

duction into the stricture, was allowed to remain without being moved, Bardinet has adopted a method directly opposed to the former. The bougie, being introduced, is moved forward and backward, the motion being very moderate at first, but gradually increasing in extent until the instrument passes a track of from eight to ten centimetres. At the same time the bougie is also rotated; at first being held tightly in the stricture, it becomes perfectly loose after from ten to thirty movements. This process is continued with bougies gradually increasing in size. In allowing the bougie to remain quiet, the object was to prevent the annoying irritation of the urethral mucous membrane. But this is trifling when massage is employed, and diminishes in proportion as the bougie, after being moved back and forth several times, becomes looser. There is no contra-indication, therefore. The bougie should always be very well oiled. Experience has shown that fever, etc., is much rarer when this method, of so-called internal massage, is used.

Hydrophobia following the Bite of a Cat (*New York Medical Journal*, November, 1876).—Messrs. Prevost and Saloz, of the Hospital of Geneva, report a case of this sort. After giving a detailed account, they conclude as follows:

1. The case is an example of the development of hydrophobia from the bite of a cat. Previously to wound of the patient, several hens and rabbits were bitten by the cat, and all died, probably of hydrophobia. At the time there were several cases of hydrophobia among dogs. It was not known whether the cat had been bitten.

2. Hydrophobia appeared in the woman forty-one days after the bite.

3. A few days before the symptoms of the disease appeared, the wound on the ear opened, and there was a serous discharge. The finger, hand, and arm became painful.

4. Morphia, subcutaneously in large doses, was of little use in calming the patient.

5. Inhalation of chloroform provoked violent spasms, so that its use was contra-indicated.

6. Injection of chloral in the veins brought about sleep, and a state of calm. The dose was repeated, and, in all, 17.50 grains were used in twenty hours.

7. The treatment was only palliative, as the patient finally died; but the benefit of chloral as relieving suffering seemed very marked.

The Physiological Actions of Colchicin (*The Lancet*, September 23, 1876).—The most remarkable phenomenon that this agent produces is the complete loss of sensibility from paralysis of both the peripheric and centric nerve-endings. The reflex excitability is consequently abolished. On the other hand, the motor nerves and the muscles retain their excitability till death takes place. In many animals the paralysis is preceded by a stage of excitation. That in frogs may rise in intensity till there is an outbreak of tetanic convulsions. The circulation of the blood is only slightly disturbed by the action of the poison. The heart continues to pulsate even after the paralysis of the central nervous system has commenced. The blood-pressure long remains unchanged, only sinking when the animal is moribund, and, in like manner, the paralysis of the inhibitory nerves of the heart occurs at a late period. The respiration becomes gradually less and less frequent, until it is entirely arrested, so that we must conclude that there is gradually increasing paralysis of the respiratory centre. In warm-blooded animals, and especially in cats, poisoned with colchicin, the mucous membrane of the whole gastric and intestinal tract is swollen and strongly injected, whilst the intestine contains bloody mucus. In consequence of this there are diarrhœa, vomiting, and colicky pains during life. The cause of the congestion has not as yet been ascertained. The fibres of the splanchnic and abdominal branches of the vagus are not paralyzed. The kidneys are strongly hyperæmic, and their secretions diminished. The action of colchicin takes place very slowly, death only occurring after several hours; and it is remarkable that, as was observed some time ago by Schroff, the amount of the dose has scarcely any perceptible influence on the intensity or rapidity of the action of the poison. A few centigrammes, and in cats even a few milligrammes, are sufficient to cause death, which results from arrest of the respiration, whilst the heart continues to beat for some time. In this stage tonic or clonic convulsions occur both in cats and rabbits, which Rossbach attributes to asphyxia. Doses smaller than are sufficient to cause death have scarcely any action.

Treatment of Typhoid Fever by Ergot (*The Medical Record*, November 11, 1876).—At the meeting of the *Association Française pour l'Avancement des Sciences*, of August 23, M. Duboué, of Pau, stated that he had treated a number of cases of typhoid fever with ergot, and that his success has been satisfactory. The toleration of ergot increases with the severity of the disease. As a rule the drug is not so well tolerated by women as by men; consequently, it must be given in smaller doses to the former. It may be given without fear to pregnant women. The pulverized ergot of rye preserves all its medicinal qualities for about eight days; if it lose its physiological properties within that time, it is because it was already altered when pulverized. Of fifteen cases treated by Dr. Duboué, the extreme rapidity of the cure rendered the diagnosis of two uncertain; five cases of moderate gravity that recovered presented during their courses alternations of aggravation and amelioration that corresponded with

intentional interruptions of the treatment. Of eight very grave cases, six recovered; three of these cases being already far advanced before the ergot treatment was begun. In the two fatal cases the ergot did not produce its ordinary therapeutic effects, and on examination it was found to be worm-eaten and covered with a grayish powder.—*Gazette Hebdom. de Méd. et de Chir.*, September 1.

Diphtheria (*The Physician and Pharmacist*, November, 1876).—Dr. Rudolph Tauszky claims to have proved, in an elaborate paper, the correctness of the following propositions:

1. That diphtheria is dependent upon minute vegetable organisms, which invade the system through an abraded skin or abraded and inflamed mucous membrane.

2. That bacteria are easily distinguishable, microscopically, from detritus, fat, or albumen, by the glycerin, acetic acid, and heating test.

3. The contagion of diphtheria is not a gaseous substance.

4. It is most assuredly first a local disease, and, after existing a certain time, becomes general.

5. Catarrh, nasal and pharyngeal, one or both, always precedes it, or may be regarded as its first stage.

6. That croup and diphtheria are not identical diseases; croup exudations never enter the circulation; croup always remains a local disease, and kills only by mechanical obstruction, of the larynx for instance.

Poisoning by Paraffin (*The British Medical Journal*, October 14, 1876).—Dr. Robert Smith reports the case of a child four years of age, who was brought to his surgery, having swallowed a quantity of paraffin a few minutes before. The chief symptoms were those of suffocation, with a constant cough, though there was no expectoration. The tongue, gums, and cheeks were blanched and swollen where the oil had touched them, and the child's hands were raised to the throat. But there was no vomiting of any kind. The mouth and throat were washed with olive-oil with good effect; the distressing cough ceasing before he left. On going home, milk and castor-oil were ordered to be given; and in the evening the bowels had been freely moved, and the child had apparently quite recovered. There were no means of determining how much paraffin had been swallowed.

Corrosive Sublimate as a Remedy for Gonorrhœa (*The Medical Record*, November 11, 1876).—During the last three years, Dr. Leopold Bruck, of Buda-Pesth, has given the bichloride of mercury a systematic trial in the treatment of blennorrhœa urethræ, and the following are the results of his experience:

1. Under the use of the sublimate, gonorrhœa is cured within six weeks, without the supervention of any of those complications that are met with when the treatment by injections is employed. The use of the remedy may be begun in the so-called hyperæmic stage. The discharge is very profuse during the first ten days, and then gradually becomes less profuse and more serous; the burning pain and the chordee are not severe.

2. Spirits, coffee, and highly-spiced foods must be avoided during the treatment.

3. Purgatives are not required while the sublimate is being used.

4. The remedy sometimes causes cramps in the stomach and small intestine, and its use must then be intermitted for some days.

5. It must not be used when there is disease of the heart or lungs.

The sublimate should be given in pill form. During the first ten days, twenty pills, containing each $\frac{1}{67}$ gr. of mercury, should be given; the next twenty pills should contain $\frac{1}{33}$ gr. of the medicine, or they should be taken in half the time if the quantity remain the same.—*Centralblatt für Med. Wissenschaften*, July 1, 1876.

Suture of the Sciatic Nerve (*The Lancet*, October 21, 1876).—In the Address in Surgery to the meeting of the British Medical Association in Sheffield, Mr. Favell alluded to a remarkable case in which Mr. Wheelhouse, of Leeds, inserted sutures into the ends of a divided sciatic nerve, with apparently the ultimate result of obtaining union between the two portions and restoring functional continuity. The same operation has since been performed by Langenbeck, and the details are given in a letter from Dr. Du Pré to the *Journal de Médecine* of Brussels. The sciatic nerve had been divided two years before by a fall upon a knife. The limb was wasted, and the outer part of the foot and leg was anæsthetic. A longitudinal incision was made over the cicatrix, and the two ends of the divided nerve were found two inches apart and surrounded by a considerable quantity of cicatricial tissue. Each extremity was considerably enlarged, the upper more than the lower. A small portion of the lower extremity was removed and examined for nerve-fibres, to ascertain whether its degeneration was so great as to preclude hope of recovery. Finding that it contained nerve-fibres, the extremity of the central portion was removed, and, the knee being bent, the extremities were brought together and united by two ligatures of catgut, the wound closed, and the knee kept in the same position. The interference with the nerve was followed by no bad symptom, and two months afterwards, although there was no return of motor power, it was thought that sensation had improved, for the patient could indicate the place touched, where before there had been no sensitiveness.

Peculiar Form of Luxation of the External Extremity of the Clavicle (*The Lancet*, October 14, 1876).—M. Nicaise reports the case of an old man, æt. 81, who was admitted to the hospital after having had a fall upon the back part of his shoulders. At first

sight the case appeared to be one of luxation of the head of the humerus forwards, several of the symptoms of that displacement being present. But upon closer examination it was easy to determine that the head of the humerus had not left its cavity, and that there was in reality a luxation of the clavicle, and not of the humerus.

The symptoms were briefly as follows. In front the internal extremity of the clavicle was prominent, the inferior and superior clavicular fossæ were effaced, and the distance between the middle line and the shoulder was diminished. At the shoulder the head of the humerus was found to be in its normal position. The articular surface of the acromion was found to be situated in front of the clavicle. Behind the acromion the external extremity of the clavicle could be readily distinguished. The articular surface of the latter was situated outside the acromion, and its anterior border corresponded with the posterior border of the acromial process. The head was slightly flexed, and turned towards the right. The elbow was separated from the body by a distance of ten centimetres. The spinal border of the scapula was prominent, and its inferior angle was pushed towards the spinal column. The movements of the arm were very limited, and caused much pain.

The patient was put under the influence of chloroform with the view of reducing the luxation, but this was found to be impossible: accordingly his arm was fixed in a sling.

M. Nicaise, who was doing duty at that time for M. Péan, proceeded to make some experiments upon the dead body, in order to determine the mode of production of this form of luxation. With the section of the acromio-clavicular ligament it was impossible to produce the luxation. The trapezoid ligament was then cut, and it was then found easy to produce the desired displacement. The conoid ligament was left intact. From these experiments it may be inferred that the rupture of the trapezoid ligament is necessary for the production of this form of luxation.

Manslaughter by Rupture of the Spleen (*The Lancet*, October 7, 1876).—A curious medico-legal point was involved in a recent trial for manslaughter in Ceylon. A coolie, in consequence of alleged impertinence, was treated with some violence by the superintendent of a plantation, and died almost immediately from—as the post-mortem examination showed—rupture of the spleen. The man had had fever lately. The spleen was large and soft; it had ruptured, and the peritoneal cavity was full of blood. It was urged for the defence that the spleens of coolies sometimes rupture spontaneously on severe muscular exertion, that the exertion of running away, as the coolie did, might have ruptured his spleen, and that death therefore would not be the direct result of the action of the accused. Dr. Norman Chevers was quoted in support of the theory that the spleen might rupture under such circumstances, but it was discountenanced by the medical witnesses, and, we think, rightly. An accident so rare, and even doubtful, as such rupture of the spleen must be, cannot be allowed weight in the presence of evidence of direct violence. The chief justice ruled that, even if the diseased spleen would have caused the man's death sooner or later, the rupture was so distinctly the result of the violence that the prisoner could hardly have been acquitted of the charge of at least accelerating the death of deceased, and thus of manslaughter. The jury found the prisoner guilty, and he was sentenced to eighteen months' imprisonment with hard labor.

Idiopathic Glossitis (*The Boston Medical and Surgical Journal*, October 26, 1876).—Dr. E. H. Bradford reports the case of a young man, aged twenty, of an average healthy appearance, who presented himself for treatment, complaining of a swelling of the tongue. The night before his tongue began suddenly to enlarge without any known cause. There had been no injury to the tongue, and the patient had been taking no medicine. Two leeches were applied to the tongue on the advice of an apothecary, and ice was used.

On examination the tongue was seen to be swollen to more than double its normal thickness on the right of the median line; the swelling was greatest about two inches from the tip. Some swelling was to be seen also on the left side, and the edges seemed thicker than usual. The surface of the tongue was normal, with the exception of a few excoriations caused apparently by the friction of the teeth. The gums were healthy, and nothing unusual was to be seen on the fauces or pharynx. The mucous membrane beneath the tongue, covering the upper surface of the sublingual gland, appeared slightly swelled. There was no enlargement of the glands of the neck. Speech was not interfered with, and there was no pain or tenderness. The tumor, however, was quite hard, and felt like a circumscribed lump when taken between the thumb and forefinger.

The patient said that a year before his tongue became suddenly large in a similar way, the swelling commencing at night and increasing so that he could breathe only through his nostrils and feared he would be suffocated. On medical advice leeches were applied to the tongue and ice was used afterwards, and in a week or ten days the tongue assumed its normal size. The physician in charge, he claims, attributed the tumor to smoking.

The second attack passed off without any great trouble. The swelling diminished the next day under no treatment except ice, and a week later it had entirely disappeared.

On cross-questioning it was learned that the

patient had had a chancroid a few years previous, but no specific symptoms could be ascertained.

Iodine in Typhoid Fever (*The Medical Record*, November 11, 1876).—Dr. G. M. Edebohls, house physician at St. Francis's Hospital, reports that in that institution iodine has usurped the place of the mineral acids, and is given internally in all cases of typhoid fever. It is thought to lessen the troublesome gastric irritability so often present, and to diminish the number of evacuations from the bowels.

The following formula is usually employed:

℞ Iodinii, 3j;
Potassii iodidi, 3ij;
Aq. dest., 3x.

M.—Gtts. iij in wineglassful of water every three hours.

Lugol's solution, the liquor iodinii comp. of the Pharmacopœia, may be used in doses of six drops every three hours.

The cold bath, quinine, and iodine, with close attention to the diet and the exhibition of stimulants when indicated, constitute the main features in the treatment of typhoid fever. The cold wet pack is occasionally substituted for the cold bath when the latter is not well borne.

Salicin in the Cardiac Complications of Acute Rheumatism (*The Lancet*, October 28, 1876).—Dr. T. Maclagan has arrived at the following conclusions with reference to the action of salicin in the cardiac complications of acute rheumatism:

1. That given sufficiently early and in sufficient dose, salicin prevents these complications.

2. That its free administration is the best means of staying their progress after they have occurred.

3. That such general treatment does not exclude the usual local measures,—leeching, poulticing, etc.

4. That the beneficial action of the salicin on the heart ceases when the temperature falls to the normal.

5. That salicin is powerless to remove the effusion which remains after the fever has ceased.

MISCELLANY.

Microscopic Examination of the Circulation.—At the last meeting of the London Medical Microscopical Society, Dr. Pritchard exhibited an ingenious form of microscope by which the circulation of the blood in the frænum of the human tongue could be watched. The essentials of the instrument were a tube carrying an ocular and a No. 2 (Hartnack) objective; to the end of the latter was fitted a brass cap, from which a hollow rod of metal, of the size of a crowquill, and about an inch long, projected. The cap was centrally perforated. The narrow end of an ordinary ear speculum was presented to the extremity of this small tube and held adjacent to it by a wire clip, and so arranged that microscope tube, metallic rod, and ear speculum had each its axis in the same straight line. To use it, the frænum linguæ was placed between the hollow rod and the speculum (the latter condensing the light), and when focussed, the circulation could be watched. We thank and congratulate Dr. Pritchard in the name of the profession upon the ingenuity of his invention, which will prove a valuable help in histological investigation.—*Med. Press and Circular.*

A Remarkable Occurrence.—In the current number of the *Veterinary Journal*, a correspondent, an army veterinary surgeon, states that some men of the Native Infantry Regiment stationed at Cawnpore went out shooting, and in the course of the day came upon an antelope doe, which they immediately shot *dead*, and carried home. On opening the animal for the purpose of preparing it for the pot, they released a strong healthy youngster from the uterus, washed it, and induced it to suck milk from a bottle. "This little fellow is still living and thriving well under the care of the band-master of the regiment, by whom the above was related to me. Now, the peculiarity of the case is this,—that the time from when the mother was shot until the young one was released could not possibly have been less than twenty-five minutes. I have taken every care to verify the story, and can find not the least exaggeration in it."—*Med. Press and Circular.*

Communication of Syphilis by Milk.—In the *Petersburg Med. Wochenschrift*, No. 23, 1876, M. R. Voss states that he inoculated three prostitutes with the milk of a woman who had a papular syphilide, with moist mucous papules on the genitalia and anus; the mammary glands were free. The milk was obtained by pressure, and a Pravaz's syringeful was injected into each of the three prostitutes. In one, who was already syphilitic, no result was produced. The second had urethritis, and remained unaffected. In the third, a girl aged 16, who had not had syphilis, the injection was made on the eleventh day after her admission into hospital. Inflammatory swelling and suppuration took place, but were healed in a week. Forty days after the inoculation, a papular eruption appeared around the spot where the injection had been made, and five days afterwards a maculo-papular syphilide with adenitis appeared over the body. These symptoms disappeared under the use of mercurial inunction.—*British Medical Journal.*

A Centenarian.—A man named Alexander Macpherson died last week at a village near Glenborrodale, who was said to have reached the extraordinary age of 110. One of his sons is within two or three years of 80. The centenarian retained his good health to the last, moving about almost daily, looking

after his cattle, and feeding them himself night and morning.—*British Medical Journal.*

A NEW medical tax is announced from the Bureau of Medical Affairs in Berlin, of which the following are points: for a distance of two kilometres, or less, carriage fare and time cannot be charged (a kilo is about three-fifths of an English mile); for a distance of more than two kilos, carriage fare may be reckoned; night visits are those made between ten P.M. and seven A.M.; the amount of a single fee may depend upon the station in life, also upon the ability of the patient to pay and the severity of the case. The charge for the first visit at a patient's house is from two to six marks (a mark represents twenty-five cents of American specie); for every succeeding visit, one to three marks; for a night visit, six to eighteen marks; for an office visit, one to three, and for an office visit at night, three to nine marks.—*Boston Med. and Surg. Journ.*

SNAKES.—In 1875, 32,391 cobras were destroyed in Bengal alone, at a cost to the Government of 7807 rupees. The deaths of human beings in the same year from snake-bite appear to have been 8807 in Bengal, or an increase of 1212 on the number in the preceding year.

NOTES AND QUERIES.

MR. EDITOR,—With your permission I would like to say a few words in reply to Dr. Cotton's paper, and to any others who may have failed in my method of treating diphtheria.

I am sorry that I cannot give the doctor some practical lessons in my heroic manner of treating this disease, as everything depends upon the thorough application of the remedies prescribed, until they have accomplished the intended result.

I regret that the discussion of my paper referred to (in the *Medical Times* of October 14, 1876) was not published, as it would have explained more fully in detail my method of treating that disease than I feel like attempting to repeat on paper.

However, with the hope that I may benefit others, I will insist on a fair and earnest trial of the remedies and method of applying the same, which I have used with such wonderful success; and with that aim I will endeavor once more to indicate my treatment.

In mild cases and taken early, I begin by prescribing, for an adult—

℞ Acid. sulph. aromat., ʒii;
Syrup. aurant. cort., ʒiii.—M.

Sig.—Teaspoonful every three hours, followed with a half wineglass of cold water to dilute the acid in the stomach.

For child from one to two years—

℞ Quiniæ sulphatis, grs. xii;
Acid. sulph. aromat., gtts. xxiv;
Syrup. aurant. cort., ʒiii.—M.

Sig.—Teaspoonful every three hours in the same manner as for adult.

I also give a saturated solution of chlorate of potash made with boiling water, ʒi to ʒii, to be taken every two or more hours in doses to suit the severity of the disease and age of the patient. I also order one drachm of liquid persulphate of iron to a pint of cold water, to be used three or more times a day (by those who can) as a gargle. When the case is of a malignant character, I commence my treatment by giving, during the early stage of chill and aching of the system, quinia and tartar emetic; two grains of the former and one-twelfth of a grain of the latter every three hours for an adult until the fever is broken. At the same time I swab out the throat with a mop made of a piece of linen rag wrapped evenly around a small stick, the edge of the rag projecting about one-eighth of an inch over the blunt end of the stick, and revolved around until sufficient size, then securely tied, saturate it with the liquor ferri persulphatis and apply it to the membrane wherever found in the throat, and re-apply until every vestige of the membrane is removed. This process should be repeated two or more times every day as long as the membrane continues to reform, and in the mean time the patient is to keep up the treatment prescribed above for mild cases, together with a generous diet of milk, beef-tea, etc.

Let me impress you with the importance of keeping the membrane cleaned off the throat as often as it reforms; and do not depend upon the mother or some inexperienced person to swab it, but see to it yourself, and you will have most gratifying results.

Very respectfully,
WM. L. STEWART,
Seventeenth and Filbert Streets, Phila.

TRANSACTIONS OF THE INTERNATIONAL MEDICAL CONGRESS.

Subscriptions for the forthcoming volume of Transactions of the International Medical Congress are now being received.

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OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM NOVEMBER 19, 1876, *TO DECEMBER* 2, 1876, *INCLUSIVE.*

GIBSON, J. R., ASSISTANT-SURGEON.—Assigned to duty as Chief Medical Officer of the Powder River Expedition. S. O. 156, Department of the Platte, November 16, 1876.

WILLIAMS, J. W., ASSISTANT-SURGEON.—Assigned to temporary duty with the troops at Washington Arsenal, D. C. S. O. 240, A. G. O., November 22, 1876.

MCELDERRY, H., ASSISTANT-SURGEON.—Relieved from duty at Fort Monroe, Va., and assigned to temporary duty with the troops at Washington Arsenal, D. C. S. O. 242, A. G. O., November 24, 1876.

PATZKI, J. H., ASSISTANT-SURGEON.—To report to the Commanding Officer, Fort D. A. Russell, Wyoming Territory, for duty. S. O. 154 Department of the Platte, November 14, 1876.

DICKSON, J. M., ASSISTANT-SURGEON.—Assigned to duty with Sixteenth Infantry, in New Orleans, La. S. O. 224, Department of the Gulf, November 18, 1876.

HOFF, J. V. R., ASSISTANT-SURGEON.—To relieve Assistant-Surgeon Gibson from his duties as Post-Surgeon, Fort Fetterman, Wyoming Territory. S. O. 156, c. s., Department of the Platte.

BARNETT, R., ASSISTANT-SURGEON.—Assigned to duty with battalion of Third and Thirteenth Infantry in New Orleans, La. S. O. 224, c. s., Department of the Gulf.

CRAMPTON, L. W., ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 132, Military Division of the Missouri, November 17, 1876.

TAYLOR, M. E., ASSISTANT-SURGEON.—Assigned to duty with battalion of Third and Thirteenth Infantry in New Orleans, La. S. O. 224, c. s., Department of the Gulf.

ROSE, G. S., ASSISTANT-SURGEON.—Died at Madison Barracks, Sackett's Harbor, New York, November 20, 1876.

LAUB, C. H., LIEUTENANT-COLONEL and ASSISTANT-MEDICAL PURVEYOR.—Died at the Soldiers' Home, near Washington, D. C., December 2, 1876.

PHILADELPHIA, DECEMBER 23, 1876.

ORIGINAL COMMUNICATIONS.

ON MATERNAL IMPRESSIONS AFFECTING THE FŒTUS.

BY E. SEGUIN, M.D.

THE issue of the *Philadelphia Medical Times* of the 25th of November contains a communication from Dr. W. T. Taylor, with a description of cases in which maternal impressions during pregnancy have apparently caused deformity or arrest of development, or have otherwise injured the fœtus.

This communication of Dr. T. is not only a valuable contribution to the literature of the subject, but an invitation to all of us to bring together the results of our individual experience and creditable information.

I answer this call by citing the following cases:

1. An officer of the old Napoleon, known for his bravery in the field, would become pale and faint at the sight of a naked parlor-sword. It was well known that before he was born his father had all but killed his mother with such an arm in a fit of jealousy.

2. In 1842, '43, '44, I attended a girl called Emma (the subject of my XI. observation in "Traitement moral, hygiène, et éducation des idiots," Paris, J. B. Baillière, 1846). The backwardness of her mind and her physical restlessness were attributed to the anxiety of her pregnant mother for the safety of her husband engaged in the civil wars of Paris. All the other (6) children were remarkably above the average.

3. Mrs. D., a very refined woman of temperate habits, was no sooner pregnant with her fourth child than she began to drink a quart of brandy a day, and continued to do so, her head being never affected, till delivered of a boy. Though she and her husband were remarkably swarthy, her child was pearly white,* with the lightest red hair, myopic and idiotic. She has never touched brandy since. (Obs. II., from "Idiocy and its Treatment by the Physiological Method." New York: W. A. Wood & Co., 1866.) In the two following observations, the morbid influence of the mother on the child seems to be traceable during the lactation.

4. Madam B. came out overheated from a ball-room, gave the breast to her baby three months old; he was taken with spasms two hours after, and since is a confirmed idiot and epileptic. (Obs. VI., from "Idiocy," etc.)

5. In a moment of great anxiety, Mrs. C. jumped in a carriage with her suckling, a girl of fifteen months, so far very intelligent and attractive. The child took the breast only once in a journey of twenty miles, but before arriving at the destination she vomited several times, with no other interruption than that of coma; and after an acute continuous fever settled down into the condition of a cripple and an idiot. (Obs. VII., from "Idiocy," etc.)

6. Mrs. H., ignoring that she was with a second child, continued to nurse with her own milk her first born. This one, eight months old, from rosy became waxy; her head seemed to grow larger,—as it probably did, but was not measured,—and a few months later it measured twenty-six inches in circumference: the nutrition of the second child prevented that of the first, and hydrocephalus with idiocy followed the deficiency of nutrition. (Obs. X., from "Idiocy," etc.)

7. Since the XLIII. observation of the same book was written, I have learned some details of its probable etiology worth preserving. The mother of Blind Tom, a Georgia slave, went to Columbus once a week to sell the small produce of the plantation. She had her stand opposite a drug-store, whose sign represented a boy pounding drugs in a mortar. When pregnant, she could not take her eyes off of that picture; and when Blind Tom was not playing the piano for his master, he used to stand in the same attitude as the drug clerk. I remember him in this attitude quite distinctly at a hotel in New York.

8. A pregnant woman longed for a dish of ham, and her husband, a physician of my own family, thought this a good opportunity to try the reality of the doctrine of the "envies de femme grosse." The ham was not served to the lady, but her girl was born with marks not unlike cooked ham on the back of the head and on the

* It is a popular belief in France that the use of brandy by the mother whitens the skin of the fœtus.

legs. Nobody else in the family was ever known to have nævi materni.

9. Madam M., the wife of a well-to-do farmer in Stark County, Ohio, after serving a tramp a pot of milk and bread on the table in front of her house, saw that the man had no left hand. She, from her stoop, looked at him fixedly all the while till he left, then she re-entered her room crying, "My child will be born with but one hand," and in due time (two months later) it so happened. I have seen the child, four years old, fine in every respect excepting on the left side.

10. One of the most interesting cases of degenerescence of organs starting from the time of gestation, is that of P. G., aged 13. During her pregnancy, his mother had trouble. That is too often all that is said to us about the etiology of these cases. G. was healthy, but could not learn anything, and for all purposes was like an idiot. But his mother, being highly intelligent and devoted, saw that the affection was peripheric, and the sensorium commune (where all the perceptions are stored and taken from when wanted) was unimpaired; and she undertook his education accordingly. The nerves of vision and audition being partially atrophied (St. John B. Roosa's diagnosis), the voice remaining a whisper, and the articulation imperfect, the mother saw for her child where he could not see, and pointed out to him what he could, but was unable at first to discern. She heard for him and read for him, yet made him read, write, count, exercise, use tools, etc., as far as his senses would allow. What she could not teach him in Boston, or from books, she taught tangibly in Germany, France, Italy, in the Alps, or in the mines, museums, and factories. Neglected, G. would have exhibited a typical case of idiocy of peripheric origin; trained by his mother, his mind is clear and judicious behind the curtain of cloudy senses. Obedient and loving, wise and dexterous, fond of nature, gardening, and carpentry, he won the respect of all wherever he went, of Niemeyer, once his physician, as of the boys who play with him on the sidewalk. He will make more progress yet.

In my report on education at the Vienna International Exhibition of 1873, I exemplified this position in regard to prenatal education by several cases, from which I quote this:

11. Madam R., being alone with her sick husband in a country-house at night, saw somebody, wrapped in a sheet for a disguise, trying to force an entrance. She, unarmed and unaided, cried out, pushed and piled heavy furniture against the door, and succeeded in repulsing the intruder. She soon after gave birth to a healthy male child; but who, at the hour at which this struggle took place, would every night scream as if in terror. At all other times he was good-humored; but no medical treatment could prevent him from awakening and screaming at that precise hour. This habit disappeared, be it noted, when he was severed from the breast of his mother.

During the period of gestation, the feelings come mainly through reflex impressions from the mother; a process which not only lays the foundation of life and vitality, but forms the deeper strata of the moral disposition and of the so-called innate ideas.

"Physicians, we can certify that when our hands receive a new-comer, we read quite plainly upon his features on what sort of feeling he was bred, by that intra-uterine education whose imprints trace the channel of future sympathies and abilities. Therefore, as it is noble work to educate or to cure the idiot, the insane, the hemiplegic, the epileptic, etc.; how much higher is the work of preventing these degeneracies in the incipient being by averting those commotions which storm him in the holy region intended for a terrestrial paradise during the period of fœtal evolution!" ("Reports of the U. S. Commissioners to the Vienna Exhibition," t. ii.)

After answering to the best of our ability to the call of Dr. W. T. Taylor for information on "maternal impressions affecting the fœtus," let us remark that the same inquiry has recently been put before the profession by a constituted body of physicians, in the following terms:

"The superintendents of the American institutions for the improvement of idiots and feeble-minded children having formed an association for the more rapid advance and spread of their special part of medical science, resolved not only to unite their efforts, but to seek the assistance of physicians in general practice who can help them to elucidate the causes of idiocy and kindred affections.

"Previously, when searching individu-

ally for these causes, we met with three obstacles: one from the parents, whose ignorance or false delicacy would not, or could not, tell the truth; second, one from our mode of procedure, which was to not communicate nor put in common the findings of our individual experience; and a third, worse yet, to send abroad printed inquiries whose specifications were so worded by conceited theories as to force the answers towards biased issues, thereby rendering these data untrustworthy, if not truthless.

"Now, knowing better from experience, we send you no syllabus, but we rely upon your own intelligence to write a short communication of the causes of idiocy which have come to your knowledge from reliable witnesses or personal observation.

"The names will be either omitted or made use of at your request.

"Please address, as soon as convenient, the Secretary of the Association, I. N. Kerlin, M.D., Superintendent of the Pennsylvania Training School for Feeble-Minded Children, Media, Pa."

Is not this a sign of our times, and a good sign too, that more is demanded by all from the experimental knowledge of each one, and that instead of begging the question we beg more light on all questions?

In this question of the causes which act as factors in the production of children of a retrograde or monstrous type, we cannot be too earnest, since every one of them born a cripple cripples at least one of the well-built ones to take care of him; so that for one thousand idiots, etc., there are two thousand useless beings. Besides, are these questions our "noli me tangere."

CASES OF COMPOUND FRACTURE OF THE SKULL, OCCURRING IN CHILDREN; WITH REMARKS.

BY JOHN ASHHURST, JR., M.D.,

Surgeon to the Episcopal Hospital, Surgeon to the Children's Hospital, etc.

Read before the Pathological Society of Philadelphia, Oct. 26, 1876.

CASE I.—*Compound, depressed, non-impacted fracture of skull, with symptoms of intra-cranial injury; removal of fragment; recovery.*—Mary L., eight years of age, was admitted to the Children's Hospital on August 23, 1876, having been injured a short time before by a brick falling upon her head from a building which she was passing. She had had five convulsions before she was brought to the hospital, and, after admission, vomited twice, seemed dull, and was evidently suffering from the condition of so-called cerebral concussion. There was a longitudinal, contused wound over the synciput, and at the anterior extremity of the wound the finger readily recognized an irregularly depressed fracture, one side of the broken part being sunk below the level of the rest of the skull, while the other side was elevated, the fragment, too, being slightly movable and obviously unimpacted.

As whatever risk would follow the exposure of the membranes had already been incurred, the wound was enlarged as much as was necessary, and the detached fragment, which in shape corresponded pretty closely to the form of a right-angled triangle, and the sides of which measured respectively fourteen, nineteen, and twenty-one sixteenths of an inch, was removed, this being readily accomplished with the elevator and forceps, and without enlarging the opening which already existed. The membranes of the brain were found to be uninjured, and could be felt and seen pulsating synchronously with the heart's action at the bottom of the wound.

[Specimen exhibited.]

The wound was then closed, but not too tightly, with lead-wire sutures and gauze and collodion, the patient put to bed in a darkened room, and cold cloths and ice-bags applied to the head. Small but frequently repeated doses of calomel and Dover's powder were ordered; care was taken to evacuate the bladder at suitable intervals by means of the catheter, and, after the first day, the patient was regularly and systematically fed every two hours with milk and lime-water. For some days she lay perfectly quiet, complaining of no pain, rational, but indisposed to speak, and curled up in the peculiar position so characteristic of the second stage of cerebral concussion.

It is unnecessary to give all the details of treatment. The bowels were moved every two or three days, by the aid of enemata. Quinia was given on the ninth day, at first tentatively, and afterwards in larger doses; the patient's diet was gradually increased, and on the nineteenth day she was moved into the general ward as thoroughly convalescent. She is now quite well, her wound having been entirely healed for nearly a fortnight.

CASE II.—*Compound, depressed, impacted fracture of the skull, without symptoms of intra-cranial injury until the sixteenth day; trephining; death from cerebral abscess on the thirty-second day.*—Daniel M., seven years of age, was admitted to the Children's Hospital about midnight on September 8, 1876, having a few hours before received a severe blow on the forehead from a shovel wielded by one of the participators in a personal combat, in which his reputed stepfather had engaged with other denizens of the tenement-house which served as his home. I saw him about an hour after his admission, and found a

starred and much retracted wound of the forehead, leading to a slightly depressed, camerated, impacted fracture of the right side of the frontal bone. The patient was in very good general condition, and had, and had had, absolutely no symptoms of any injury to the brain.

As there was no indication for operative interference, the wound was simply closed with adhesive strips, the patient put to bed with an ice-bag to his head, and placed upon constitutional and dietetic treatment, as in the preceding case. On the fifteenth day (September 23) he appeared to be so well that the ice-bag was removed, his diet was somewhat increased, and he was moved into the general ward. The next morning, the sixteenth day since the reception of the injury, the patient vomited once, apparently from having indulged his appetite too freely, but seemed otherwise as well as usual. In the afternoon, however, he was suddenly seized with convulsions, principally of the left side, and accompanied with complete unconsciousness, biting of the tongue, and slight frothing at the mouth. I was immediately sent for, and, on arriving at the hospital, explored the wound, and found slight indications that the external table of the skull at the seat of fracture was beginning to separate. The crown of a small trephine was then applied, half over the fractured part and half on the sound skull, and as soon as the outer table had been penetrated, a little pus welled up alongside of the instrument. A disk of the outer table came away in the trephine, and the corresponding portion of the inner table was removed with the forceps, when no difficulty was found in elevating the remainder of the depressed bone. The convulsions, which had persisted all through the operation, now instantly ceased, the dusky hue of the countenance quickly disappeared, and it was evident that the imminence of death had, for the time at least, been averted. The membranes pulsated synchronously with the heart's action, and were seen to be intact. The patient was now again placed in the darkened room, the ice-bags reapplied, and in fact the original treatment of the case repeated *de novo*. With the exception of a little fever, everything seemed to go well for about a week, when the tongue became and continued furred, and vomiting set in, at first only once or twice a day, but afterwards more frequently. The patient now began to emaciate, his pulse was preternaturally slow, and he became soporose, though always easily roused and perfectly rational when spoken to. On the thirteenth day after the operation (twenty-ninth since the injury) these symptoms were more marked the tongue had become dry, and the patient occasionally screamed out, complaining, too, of constant headache. The next day (October 8) I noticed for the first time that the tongue was protruded to the left side. The day following there was slight facial paralysis, and still a day later (the last of life), decided left hemiplegia. Death ensued a few hours after my last visit, the patient gradually becoming weaker and duller, though not until the end completely comatose.

An autopsy was made about fifteen hours after death by Dr. Chapman, the coroner's physician. The head only was examined. The scalp having been turned down, the seat of fracture was revealed, the portion of bone which had been depressed being found in its normal position, and the perforation made by the trephine being evenly filled with granulations. When the skull-cap was removed, the membranes were found congested and their veins engorged with blood; but they were entire, and there was but very slight evidence of meningitis, and that chiefly on the left side. A large abscess was found in the anterior lobe of the right cerebral hemisphere, covered, in the part nearest the fracture, by a layer of healthy brain-substance fully half an inch in thickness, but approaching nearer the surface at a point lower and farther to the right. The ventricles on both sides contained more fluid than usual, but were otherwise normal.

[Specimen exhibited.]

Remarks.—These cases, interesting in themselves, are particularly so as serving to illustrate some important points in the pathology of head-injuries. In the first place, they furnish examples of the deceptive character of these lesions, and of the rule often insisted upon, that the amount of damage done to the brain is apt to be inversely proportionate to that inflicted upon the skull.

The subject of the first case, Mary L., was injured by a heavy body falling from a great distance, and of course with great momentum; and the immediate effects of the blow were seen in the entire separation of a large fragment of the skull from its attachments, and in the early and repeated convulsions, the subsequent vomiting, and the long persistence of the state described by Mr. Erichsen and other writers as "cerebral irritation," but which, it seems to me, should be regarded as simply the second stage of the condition known as cerebral "concussion." At the same time, as the sequel showed, the force of the blow had been mainly expended upon the skull; the shock to the brain, though rude, led to no permanent organic change; and the patient's convalescence, though slow, was uninterrupted.

In the second case, on the other hand, the cause of the injury was comparatively slight; the skull was broken indeed, but

the fragment was not separated, and but slightly depressed. There were at first absolutely no symptoms of intra-cranial lesion; and when the occurrence of suppuration between the inner and outer tables at the seat of fracture gave rise to convulsions, and required the application of the trephine, the membranes of the brain were found entirely intact, and with the elevation of the depressed portion of bone the convulsions instantly and definitively ceased. Yet, at the moment of injury, the skull measurably resisting the force of the blow, its effects were transmitted indirectly (by the *contrecoup* or "counter-stroke" of the older writers) to the substance of the cerebrum itself, where at a very considerable depth some slight laceration or contusion of the brain-substance occurred,—laceration so slight as to give no sign of its presence until several weeks afterwards, and yet sufficient to prove the starting-point of the large abscess which ultimately brought the case to a fatal termination.

Again, the second case is of interest as bearing upon the question of diagnosis between intra-cranial inflammation and suppuration, between meningitis and cerebral abscess. As is well known, it is often quite impossible to distinguish between these conditions, so that, as one of the best modern writers on head-injuries (Mr. Jonathan Hutchinson) justly remarks, if we adopt the rule of trephining in all cases in which, after bruise or fracture of the skull, the patient has become hemiplegic or comatose, with inflammatory symptoms, we will operate in twenty cases of arachnitis for one in which we will find any pus to be evacuated. And it is equally impossible in most cases to determine the seat of suppuration, even when it is believed to be present.

In the case under consideration, however, I was able by careful observation of the symptoms, and of the order in which they were developed, to satisfy myself pretty conclusively that the patient was suffering from a cerebral abscess, and that its position was remote from the point of external injury; at the same time, I hoped against belief, and thought it but right, on the chance of my being mistaken, to adopt such treatment as would have been suitable in a case of meningitis.

I believed that the symptoms were due to deep-seated abscess, because, first, I knew that at the time of the operation the membranes had been uninjured, and I had daily watched them pulsating at the bottom of the wound, until the healthy granulations which covered them had filled up the perforation made by the trephine and had begun to creep over the neighboring portions of the skull; this was of itself almost enough to negative the idea of meningeal trouble, whether simply inflammatory or suppurative. Secondly, the trophic much preceded in time the pressure symptoms. For days before there was the slightest evidence of paralysis, the patient had been rapidly emaciating, and was evidently perishing from some destructive visceral affection; the first deviation of the tongue, it will be remembered, was noticed but two days before death, drawing of the mouth a day later, and general hemiplegia but a few hours before the fatal issue; this state of things obviously pointed to the brain itself rather than the membranes as the seat of change, for when the meninges are affected paralysis is usually a comparatively early symptom.

Other diagnostic points were the absence of fever and delirium, the slow pulse, and the nature of the pain, which was a dull aching, seldom complained of unless the patient was questioned, and not the intolerable, mind-absorbing agony of meningeal inflammation.

I say nothing of the treatment of these cases, because, though suggesting questions of interest, therapeutics are, in my judgment, out of order in the discussions of this Society.

FRACTURE OF THIGH DURING TURNING.

BY GERALD D. O'FARRELL, M.D.,

ON Monday night, November 5, I was called to see Mrs. J. M., aged 42 years, German, eighth pregnancy. On making an examination, I found an arm protruding from the vagina, the membranes ruptured, and the liquor amnii all discharged. Recognizing the danger to mother and child, I requested that another physician should be called, and, shortly after, Dr. C. J. Nice was in attendance.

It being agreed that turning presented the only chance of saving the life of either mother or child, I placed the woman on her left side near the edge of the bed, and, making a more careful examination, found a shoulder and arm presentation, the child lying transversely

in the uterus, the nates and lower extremities being directed towards one ilium, and the head to the other, and the abdomen of the child backward to the spine of the mother. The uterus embraced the child firmly, and yet, owing, I supposed, to the shock, the mother was conscious of no pain. The shoulder and thorax were firmly impacted in the pelvis. Passing my hand cautiously up between the presenting shoulder and the front of the pelvis, and gradually working it forward, I succeeded with much difficulty, so forcibly was the uterus contracting, in laying hold of one foot; I found it impossible to get the other, and under the circumstances did not deem it safe to try. As soon as I made traction on the limb, something gave way with an audible snap. Not pausing, however, I completed the delivery in a very few minutes. On examining the child immediately afterwards, we found that the right femur, the one I could not find, was fractured at the junction of the upper and middle thirds. The leg was dressed temporarily that night, and on the following morning was put on a double inclined plane made of stiff leather, similar to those we were in the habit of using in the army during the war, made of hickory bark freshly stripped from the tree, and modelled by placing it on the sound limb for a few hours.

The placenta came away readily, and the mother was put on calomel and opium—the fourth of a grain of the former with a grain of the latter—and one-sixteenth of a grain of tartar emetic every two hours, which was continued for two days. The woman recovered without a bad symptom, and I was able to remove the splint from the child's leg at the end of the third week, when one leg seemed to be just as good as the other. It seemed strange to me that the woman never felt any pain, save that, when I was passing my hand up the uterus, she felt, to use her own expression, "as if her inside must burst."

NOTES OF HOSPITAL PRACTICE.

EPISCOPAL HOSPITAL.

SERVICE OF DR. JOHN H. PACKARD.

Reported by OLIVER ROLAND, M.D., Resident Surgeon.

CASE OF PUNCTURED WOUND OF THE BRAIN.

F. S. S., æt. 22, a blacksmith by occupation, was admitted to the wards of the Episcopal Hospital about eleven o'clock on the night of November 5, 1876. He was under the influence of liquor at the time, and was very much excited.

On examination, part of the small blade of a pocket-knife was found imbedded in the skull, the broken end about on a level with the scalp, slightly on the left side, about five and one-fourth inches from the lobe of left ear, and about five inches from the nape of the neck. The scalp-wound had been enlarged and efforts to extract the blade made before his admission. There were several minor contusions of his hands, and the history of the case was that all these injuries had been received in a fight two or three hours previously.

Careful efforts at extraction with the strongest forceps failed to remove the piece, both on account of the difficulty of securing a firm grasp and the fear of breaking it. Consequently, a lint compress was fastened over the wound, a full dose of bromide of potassium given, and an ice-bag applied to his head. In half an hour the man was asleep, and slept soundly the rest of the night. In the morning he complained of severe pain in his head, located at the seat of injury. No other brain-symptoms had yet manifested themselves. He was given Rochelle salts ℥i. His urine he passed freely.

About 10.30 A.M. Dr. Packard saw him, when under ether; efforts at extraction were again made, but without success. A small trephine, the pin of which had been removed, was then slipped over the projecting part of the knife-blade and applied to the skull. It was not until both tables of the bone had been perforated, however, that the blade could be withdrawn. It was found to have penetrated the left hemisphere of the brain to the depth of about one-fourth of an inch; the whole length of the blade removed being about one and one-fourth inches.

He reacted from the operation quickly; ice was again applied, his head having been shaved, and continued through the whole treatment. The rest of the day and night was passed pretty comfortably, but on the following morning (November 7) considerable fever and heat of head were noted, with some sickness of stomach, and about nine o'clock he was taken with what very much resembled an epileptic fit, was totally unconscious, pupils contracted, frothed at the mouth, and had violent muscular spasms; the whole lasting about twenty minutes. He had no recollection of what had occurred, but was perfectly rational till about twelve o'clock, when he had another convulsion, followed by great restlessness and delirium. There was profuse sweating, pulse 110, full and quick, respiration not much disturbed. Whenever he was moved

he uttered a peculiar, sharp, shrill cry. The delirium rapidly increased during the afternoon and night, interrupted occasionally by convulsions. During the afternoon ʒvi of blood were taken from the back of his neck by cupping, and his bowels freely opened by stimulating enemas, giving temporary relief.

November 8.—The delirium had subsided into stupor; breathing stertorous, accompanied by a peculiar whiff; pupils contracted; pulse 60, full and slow; urine and fæces passed unconsciously. It was also noticed that he did not move his right arm or leg, and about ʒiv of blood were again extracted from the nape of his neck.

November 9.—Symptoms much the same; coma fully marked; eyes filmy; sordes about the teeth; occasional rigors; and thus he remained till about 6 P.M., November 10, when he died.

The treatment employed was the administration of opium, gr. ¼, with calomel, gr. i every three hours. Bromide of potassium, gr. xx, was at first alternated with this. Morphia hypodermically. Free purgation aided by stimulating enemata. Bleeding by cut cups from the back of the neck. The diet was exclusively milk and beef-tea.

The post-mortem examination revealed an abscess of the brain immediately under the seat of injury, together with the diffusion of pus over the greater part of the upper surface of the left hemisphere of the brain. There was no fracture of the skull.

TRANSLATIONS.

ON THE INFLUENCE OF THE CONTINUOUS GALVANIC CURRENT ON NEW FORMATIONS (*Russian Military Medical Journal*).—Dr. E. Polikowsky, of St. Petersburg, states that quite satisfactory results in the treatment of cancer by the galvanic current, obtained by Neftel, Boconelle, Manfredini, and by Mussé, induced the author to investigate the action of the same agent on animals affected with cancer and sarcoma.

The author's experiments differed from those performed on man in that he determined exactly the histological character of the swelling before the séance, immediately after it, after the lapse of some days, near and at some distance from the points of application of the electrodes, using various strengths of the current, etc. For the determination of the strength of the current a galvanometer, brought within the circuit, was used. The duration of each séance was twenty minutes. The séances were without the use of chloroform.

The conclusions which have been arrived at by the author are as follows:

1. A weak current (declination of the galvanometer from five to ten degrees; decomposition of water by it 0.016 cubic centimetres a minute) produced at the places of the application of the electrodes a compression of the small vessels, obliteration of the capillaries, and a small amount of extravasation. These phenomena disappeared within two days.

2. A stronger current (declination of the galvanometer forty-five degrees) produced a destruction of the tissue at the points of application of the electrodes. These destructions showed themselves in the form of scars: on the — pole the scar was soft, jelly-like, porous, mixed with bubbles of gas; on the + pole it was dry, resembling that produced by a strong acid. The size of the scars was in proportion to the prolongation and the strength of the current. Parts of the swelling of one-half to one centimetre distance from the points of application of the electrodes, examined immediately after the séance, showed an increase in bulk of the elements of the swelling, a fine granular appearance, obliteration of the capillaries or a compression of the small vessels, or a cone-like dilatation of them. Extravasation and dilatation were here produced by the compression of the vessels; the latter being obliterated in some limited spaces, giving rise to a greater pressure in the vessels and to a subsequent passive dilatation of them. These same places of the swelling, examined two to four days later, showed inside of the dilatation the formation of clots, with a retrogressive change in the centre. Around the closed and compressed vessels a fine granular degeneration was seen, which by-and-by assumed the character of a colloid metamorphosis.

The action of the current consists only in the destruction of the swelling at the points of application of the electrodes, and in the stopping of the circulation of the blood within the limits of the action of the current. The tissue, losing its supply of blood, undergoes retrogressive

changes, degeneration, and colloid metamorphosis.

A weak current, as mentioned above, does not produce any changes; a cancer was not altered by it, and a sarcoma was even increased.

A strong current destroys both swellings; a cancer is destroyed by a comparatively weaker current than a sarcoma.

A fine cellular cancer, of the size of a small hen's-egg, was entirely destroyed during thirteen séances within forty-two days. The strength of the current used would be capable of decomposing 9.18 cubic centimetres of water. The same quantity of the current could be used within a shorter lapse of time with the same result.

Changes in the Brain and Cardiac Ganglia in Hydrophobia.—Wassilieff (*Centralbl. f. Med.*, 1876, No. 36) examined the brain and heart of a woman of 32, who had succumbed to hydrophobia in Botkin's clinic, at St. Petersburg. The various portions of the brain, etc., were examined microscopically, with the following results. A few nerve-cells of the medulla oblongata appeared cloudy, with ill-defined outline and indistinct nuclei. Similar but more strongly marked appearances were observed in the cells of Purkinje of the cerebellum. In the interstitial tissue of the brain a large collection of indifferent round elements were observed, whose size was about that of white blood-corpuscles, and which colored strongly. These were probably white corpuscles which had emigrated; they were situated for the most part in the perivascular spaces, or in the immediate neighborhood, though occasionally grouped together to the number of six to ten at some distance from the vessels in the neuroglia (proliferated neuroglia nuclei?). Finally, some of these cells were found in the pericellular spaces, and, in fact, even in the protoplasm of the nerve-cells. The blood-vessels were greatly distended and stuffed with blood-corpuscles, their endothelium swollen in places, and here and there vessels could be seen whose walls were composed of a finely granular, strongly refractive, yellowish substance, insoluble in alcohol or turpentine. The most noticeable appearance, however, was the presence (principally in the cortical portion of the hemispheres) of a peculiar, smooth, shining, strongly refracting substance in the perivascular spaces. Occasionally this substance was collected about a vessel in such a way that on section the latter appeared surrounded by an irregular ring, which seemed to compress the vessel to a smaller calibre. In other instances this (according to Benedict hyaloid) substance was so collected about the vessels in little aggregations, sometimes so regularly arranged, that the collective picture reminded one of epithelium. This hyaloid substance was not colored by any staining fluid, was insoluble in strong alkalies and acids as well as alcohol and turpentine. Negative results with the reaction for amyloid substances. In other portions of the brain the perivascular spaces were more or less enlarged.

The nerve-ganglia of the human heart lie almost exclusively about the upper portion of the ventricular septum, just over the muscular ring (limbus) surrounding the fossa ovalis, in the prismatic space formed by the separation of the muscular bundles of the right and left ventricle. The changes in these ganglia were as follows. The endothelium of the sheaths covering the nerve-cells was swollen in places; round elements resembling white blood-corpuscles could be observed in the interstitial tissue of the ganglia. The blood-vessels surrounding the ganglia, excepting the larger venous trunks, appeared for the most part empty. The protoplasm of the nerve-cells themselves seemed more or less clouded, and, as a result of this, their nuclei were nearly or quite invisible; in a few cells collections of finely granular pigment could be observed.

The most prominent and invariable change was this, that the nerve-cells did not fill the sheath entirely but left spaces between, through which only processes of the nerve-cells penetrated to the sheath. A similar appearance was observed by Lubimoff in the cervical ganglia of the sympathetic, in œdema, for instance in cardiac disease. In order to decide if œdema actually existed, Wassilief measured the cells. The result showed an œdematous condition. x.

Pathology of Herpes Zoster.—O. Riesel (*Centralbl. f. Med.*, 1876, p. 649; from *Deutsche Med. Wochens.*) observed a case which he thinks tends to disprove Bärensprung's theory of the origin of zoster as a result of trophic nerve disturbance. After extirpation of the left mamma in a somewhat anæmic woman of

36, the left arm of the patient was laid upon a horse-hair cushion in such a manner that pressure was extended over the internal condyle. The next day pain was experienced on the volar side of the forearm, and the day following a great number of infiltrations, which became transformed into the efflorescence of herpes a few days later. The further course of the disease was normal. Riesel refers to the fact that the trauma affected almost exclusively the stem of one of the principal nerves, and this just after its passage through the fascia into the subcutaneous connective tissue, and that, as in Bohn's cases, a brief and trifling injury called forth the eruption. The author thus perceives analogies between this case and those of traumatic paralysis following pressure upon or bruising of motor nerves, particularly in the arm. According to Erb, the inflammation aroused in the neurilemma is transmitted along the course of the nerve, until it reaches its remotest twigs and even its distribution to the muscles. In a similar manner Riesel thinks herpes zoster due to some such inflammation carried from the seat of injury to that of the eruption in the line of the nerve. It is evident that trophic nerves would go for nothing in cases of this kind. Bärensprung's idea, that zoster might be aroused merely as a result of inflammation of the spinal ganglia, falls through when we reflect upon the infrequent occurrence of zoster in caries of the spine and carotid aneurism, although irritations of the cervical sympathetic and other ganglia were very apt to exist in these affections. X.

Lines of Conduction in the Human Brain and Spinal Cord.—Hechsig, in a work bearing this title (*Abst. in Centralbl. f. Chir.*, No. 41, 1876), details the results of discoveries in the macro- and microscopic structure of the parts in question. It appears, under the first head, that the white substance of the central organ, which in the earlier stages of development, as is known, appears gray, acquires during fœtal life the definitive white appearance which it subsequently presents, appearing successively in regular order in the various regions. The division into white and gray substance, which is apparent during adult life, first shows itself towards the fifth to sixth month of extra-uterine existence. Microscopic research shows that the system of fibres in the cord and medulla appears and develops in a regular series; those endowed with the lower functions, as the reflex, appearing and becoming active at a much earlier period than those connected with consciousness, as the voluntary motor system. The occurrence of this method of development in the various systems of fibres affords the opportunity of studying the intimate relationships of the central lines of conduction more satisfactorily. The author, in consequence, feels himself in a position to demonstrate with more certainty than has hitherto been possible the arrangement of the various systems of filaments in the medulla and cord, and illustrates his discoveries by means of a colored scheme. It is thus seen, for instance, in what part of the cord those filaments are situated which proceed from the cerebrum, the cerebellum, and the reflexive portions of the medulla respectively. It is interesting to note the fact that the position in the spinal cord of these bundles of voluntary motor fibres, known as "pyramidal conductors," is by no means constant. They are as ordinarily situated in the posterior portion of the lateral columns of the cord, a few being situated in the anterior columns. Occasionally *all* are placed in the anterior or in the lateral columns. When the filaments pass down the anterior columns they are found to be connected with the hemisphere of the corresponding side; when they run down the lateral columns they decussate. This decussation takes place at the beginning of the spinal cord and medulla; it is very variable, being sometimes total, at other times a semi-decussation; occasionally it is altogether or almost entirely wanting. The modifications are innumerable. This discovery is important because proving that the arrangement of the individual filaments can vary more or less. The author makes it probable that not only the optic chiasm but also all crossings undergo individual variations. These anatomical discoveries explain the fact observed, *that injury to either hemisphere is followed by paralysis of the same side.*

The practical results of these discoveries is, that we can gain a deeper insight than formerly into the nature of certain diseases.

X.

The Copley medal of the Royal Society has been awarded to Claude Bernard, for his physiological contributions.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, DECEMBER 23, 1876.

EDITORIAL.

HOMŒOPATHY.

THE controversy at Ann Arbor has been so much discussed in almost every journal in the United States, that we feel like offering our readers an apology for even alluding to it. A very curious phase has, however, been developed, which seems worthy of notice, on account of its relations with most important questions in regard to the organized mass of ignorance, dishonesty, and half-truth honestly mistaken for whole truth, which makes up the modern homœopathy. The phase we allude to is the attacking of the Ann Arbor institution by the homœopaths themselves. On the table before us lies a circular addressed "To the homœopathic physicians and students of Michigan." It is a vigorous appeal by the President of the Detroit Homœopathic College for aid in obtaining the repeal of the law now in force in favor of a bill creating a separate, distinct, homœopathic medical college. So much of personal interest and feeling has been connected with the homœopathic controversy in Michigan that one naturally feels cautious in drawing conclusions. As "President" Spranger is at the head of a homœopathic school in a large city, it is plainly to be seen why he should prefer the endowment of a school in such a city to the maintenance of a department in Ann Arbor. The fact brought out by him, however, that there were only twenty-four homœopathic students last term is certainly true, and we hope his statement that "there is a prospect of still less the coming term" has proven a correct prophecy. If it should be, the days of the homœopathic department will probably be few and evil on the earth, "for it will take three years to graduate students," and the yearly expense is $6000. The Michigan tax-payer will probably be heard from, if he finds that $18,000 has been spent for the luxury of two dozen homœopathic practitioners.

It is now many years since Oliver Wendell Holmes prophesied the speedy downfall of homœopathy. Yet the day has not come. We all know what homœopathy is,—that its system is half-truth mistaken for whole truth, that its members are, many of them, ignorant men, and many of them dishonest men, that its practice as modified in modern times is at defiance with its theory, and though often useful is on the whole much inferior to the practice of the better part of the regular profession. And yet the fact remains that homœopathy still exists, and, indeed, in this country commands a very large proportion of the best practice and much of the highest social influence. It does no good to meet this with talk about the credulity of the laity, of the existence of quackery since the world was, etc.

There was never such a systematic, all-pervading quackery before; and what is wanted is not excuses for its existence and not hopeless expressions of disbelief in the ability of the laity to understand the difference between the honest applier of modern science to the cure and prevention of disease and the charlatan, but some idea as to the best way of meeting the evil. The necessity of such discussion in this country becomes still more apparent when it is borne in mind that everywhere else in the civilized world the system is losing its hold, whilst here it still seems to be increasing its influence.

Unfortunately, the medical profession is scarcely yet in the frame of mind to bear such discussion. Any suggestion that one causative factor is the deficiencies of the regular profession, would probably lead to its author being called an Ishmaelite or some other sonorous title. Any proposition

which would involve contact with homœopaths would probably bring forth an endless quotation of the old proverb about touching pitch. We would, however, renewedly call attention to the fact that in Ontario, Canada, members of the regular profession and the homœopathic practitioners sit together in a joint governmental examining board without causing thereby any intermingling of the two currents, but with the very satisfactory result that almost no new homœopathic physicians appear, and the whole system is threatened with death by starvation. We have heard the contrary to this asserted publicly, but there can be no doubt of the fact. The leading Canadian journals have borne witness to it time and again, and diligent inquiry among the Canadian delegation here last summer confirmed it most fully. The efforts of the Canadian homœopaths to have the law abrogated betray present suffering or consciousness of future peril.

FOOT-BALL.

ON opening the last number of the *British Medical Journal*, our attention was at once attracted by the notice of a case of death from a kick in the side during a game of foot-ball. Reports of severe and even fatal injuries so received in England are, as our British colleague puts it, "sufficiently frequent" to have lost their novelty, and to have prevented our giving the subject more than a passing thought, had we not recently witnessed a portion of a savage game of foot-ball upon the University grounds, in which for the first time we saw in practice the so-called Rugby rules.

Properly played, foot-ball is a most commendable, healthy, invigorating game, into whose excitement any manly boy must plunge as naturally as the duck into water. As played by the old American rules, it is also an eminently safe game, endangering nothing more serious than the superficies of the legs. But as played at Rugby it is, after war and duelling, one of the most dangerous pastimes indulged in by civilized man. The difference consists simply in the circumstance that in the American game the ball is not touched with the hands except as a fair catch, when the catcher is allowed an unmolested kick, whilst in the Rugby game the great object is to seize the ball and carry it. Any violence appears to be allowable to prevent this,—a blow, kick, push, trip, wrestle,—anything. Again, when the ball nears home, some small and plucky boy will often throw himself on it, and instantly becomes the centre of a mass of reckless and infuriated boys, many of them much larger than himself, all kicking and fighting over him and the ball. The wonder is not that so many ribs are broken, so many viscera ruptured, so many boys crippled and killed, but that so many escape. Nothing but the proverbial tenacity of the boy's constitution and the flexibility of his osseous system saves him. We are very sorry to see the savage British game introduced here, just at the time, too, when the leading British medical journals are raising their voices in protest. Probably, however, the killing or maiming of a boy or two on such a public place as the University grounds will effectually arouse the feelings of American parents.

CORRESPONDENCE.

LONDON LETTER.

THE schools are now in full swing, and the winter session is an accomplished fact both for old students returning to the scenes of former labors, and for freshmen who are making their first acquaintance with the scalpel. The proportion of medical students at the different hospitals has occasioned some comment, especially in relation to King's College Hospital and Charing Cross, the entry at the latter school being greater than that of the more famous rival institutions. This is a fact for the authorities of King's College to ponder over, and is the outcome of the present system of management. Possibly the impression that Sir Wm. Fergusson would no more be seen in

his old wonted place in the operating theatre might have something to do with the falling off at King's College. To the great and unmixed satisfaction of the profession and the public, the famous baronet has returned from Scotland to his work, wonderfully restored to health, perhaps not with unimpaired vigor, but still much like his old self. Indeed, he bore his journey from the north so well that he at once resumed his social and professional duties in town. The entry at St. Bartholomew's is unprecedented, some one hundred and thirty-six new students having entered, a very great number for a London school. The entry at Westminster was the smallest of all.

The treatment of *psoas abscess* has up to a recent period been exceedingly unsatisfactory. It was equally dangerous to interfere surgically and to let the thing alone. After the introduction of the antiseptic treatment by Prof. Lister, it was shown that the perils of interference could be largely obviated by the adoption of the antiseptic plan. The most recent modification of this plan is that of Mr. Callender, viz., *hyperdistention with carbolized water*. Not only has this plan been tried by Mr. Callender, but others testify to its efficiency and the ease with which it may be carried out amidst the exigencies of ordinary practice. The operation may be performed under anæsthetics, or the integuments may be frozen by the ether-spray. The following are required: a scalpel for incision; a solution of carbolic acid (one in twenty) diluted to one in thirty by adding warm water when about to use it; a perforated drainage-tube; lint dipped in carbolized oil (one in twenty) for covering the incision; some gutta-percha tissue, to put over; a little adhesive plaster; some tenax to receive the subsequent discharge; and an ordinary syringe. This does not tax the armamentarium of the humblest practitioner. If continuous pressure on the sac be necessary, a bag filled with sand, or, better still, with shot, is very useful. The abscess should be emptied as completely as possible, then the nozzle of the syringe should be carefully inserted, and the contents passed into the abscess-sac. A finger in the opening will secure the fluid from escaping while the syringe is being refilled, and the amount of carbolized fluid required is rather more than the bulk of pus which escapes. By distending the sac efficiently the fluid gets into every corner and cranny of the abscess, and indeed into every burrowing sinus, so as to make the washing out quite perfect. When the distention is complete the fluid should be allowed to escape, and the drainage-tube inserted; over the tube and over the incision should be placed the oiled lint, and over it again the gutta-percha tissue and some tenax; the whole being secured by some adhesive plaster. The dressings are removed daily, and the drainage-tube shortened as the abscess contracts, and, if desirable, the sac may be washed out from time to time with carbolized water. When there is no caries of vertebræ the whole closes up, but if there be also bone caries a sinus remains. This plan can be applied to other abscesses, and is especially suited to the irregularly-shaped abscesses of pyæmia. It is well adapted to the exigencies of rural practice, when the surgeon has only the help of some lay assistant, and where an elaborate apparatus is out of the question. A paper on the same subject was recently read before the Harveian Society by Mr. Edward Owen, in which he detailed two cases of psoas abscess very successfully treated on this plan.

Fracture of the spine is an accident but rarely followed by recovery; but a very singular and interesting case was related at the Pathological Society at its last meeting by Mr. Carr Jackson, surgeon to the Great Northern Railway Company. The subject of this accident was crushed by a horse-box falling on him twenty-six years ago. He was taken to the Royal Free Hospital, where it was found that motion was lost, but not sensation. The sphincters acted efficiently. After a month's residence in hospital the man improved so much that he went out on crutches and commenced to earn his living, which he has done up to the time of his death, a few months ago. Mr. Jackson kept a strict watch on him all these years, in order to secure the spine at last. The man used to enjoy life in his way: worked steadily, and got intoxicated occasionally, like his neighbors. At last the opportunity came, and by great exertions the coveted spine was secured. After a careful preparation, the amount of injury and repair is distinctly demonstrated. Two lumbar vertebræ had been extensively damaged, there having been both fracture and dislocation. There was intense pain at the time of the accident, but no contraction of any muscle or group of muscles followed. The man, however, retained an unsteady gait, which was not to be wondered at under the circumstances. A large mass of new bone had been thrown out by the damaged vertebræ, so as to solder the fractured pieces together. The union was strong and solid, but there was some twisting of the bodies of the vertebræ, which probably caused the modifications in the gait. Not only had the reparative process gone on from the periosteum of the fractured vertebræ, but spiculæ of bone were thrown out from the neighboring vertebræ above and below. The spinal canal was not much narrowed. There was also some injury to two cervical vertebræ, which were firmly united without any displacement. This injury was in all probability inflicted at the same time as the graver damage to the lumbar portion of the spine. The whole case is one of great rarity, and the result a very satisfactory one. The Society expressed its great satisfaction with the persevering way the case

had been followed from the date of the original injury to the time when the spinal column could be secured for scientific purposes. The preparation is now in the museum of the College of Surgeons, if any reader should be crossing the Atlantic and wish to inspect it for himself.

The Harveian Society opened with a paper on *Anhidrotics* by Dr. Milner Fothergill. He commenced by pointing out the anatomy and the functions of the sudoriparous glands, showing how increased vascularity of the skin and functional activity of these glands, though associated in health, as in the perspiration of violent exercise, are disassociated in some forms of disease. Thus, in rising fever the skin is burning and vascular, but dry and without perspiration. At other times, as in syncope or angina pectoris, where the skin is blanched and bloodless, there is free action of the sweat-glands, and the skin, especially of the face, is bedewed with sweat. Such activity with a blanched skin, from arterial anæmia, is rendered possible by the large plexus of capillaries at the root of each sweat-gland. Sweat is not mere water, but is highly charged with phosphates, chlorides, and sulphates, together with a fatty acid. It is acid normally, but when excessive becomes first neutral and then alkaline. At no time is any albumen found in sweat. The loss of these salts of the body by profuse perspiration renders hidrosis (hydrosis, Dunglison) most exhausting in conditions of debility, the condition of its main occurrence. It is of little use to feed up the patient when such a drain is going on; it is like pouring milk through a sieve. This is especially seen in the case of the consumptive, where the heavy night, or rather morning, sweats, are so often found. No treatment is effective which does not succeed in arresting the hidrosis. The best measures for checking the sweat are tonics with mineral acids, or astringents during the day, to improve the general health, and then some more specific measures at bedtime. Of these the sulphate of copper, sulphuric and phosphoric acids, the oxides of silver and zinc, especially the latter, are those in common use. More recently certain members of the Solanaceæ have been used for this purpose, and chiefly belladonna and hyoscyamus. Hyoscyamus is rarely given alone, and is generally given with the oxide of zinc in pill. Such combination is very effective in many cases. Belladonna is the most potent agent, however, and Dr. Fothergill has the opportunity of giving it a very extensive trial at the Victoria Park Chest Hospital, to which he is attached. In the very hot week, July 16 to 23, of this year, he had seventy-four (out of a total of three hundred out-patients) taking this drug. With scarcely an exception they were all phthisical, chiefly in the early stages. The arrest of the sweating is usually brought about by a dose of one seventy-fifth of a grain of atropine, or twenty drops of the tincture of belladonna, at bedtime. It takes a dose or two before the effect is brought about, and the effects continue two or three days after the drug is discontinued. In other cases it is necessary to push the medicine to the fiftieth, or even the twenty-fifth, of a grain of atropine. It would seem that some patients are much more tolerant of belladonna than others, and with them the larger doses may be given without toxic symptoms being induced. Where the smaller doses are insufficient the higher ones must be administered. In some cases dryness of the throat or indistinctness of vision, especially when getting out of bed in the morning, are complained of, but there is no difficulty in getting the patients to continue the drug, as they find it relieves them of their exhausting sweats. In those cases where the largest dose given here fails, then it is well to give the oxide of zinc and hyoscyamus in pill, as apparently there is a great tolerance of belladonna in such cases. As soon as the sweats are checked the patient begins to pick up, the appetite improves, and the digestion becomes more vigorous; the drain of salts by the sweat being arrested, these salts so retained in the body aid materially in procuring good assimilation. Of course the effects of anhidrotics are better seen in the earlier than in the latter stages of phthisis. When the lung is breaking down extensively, and the patient is the subject of persisting colliquative sweats, then the results are but palliative, though it may be found that larger doses than those hitherto given may be more effective even in these cases.

At the Medico-Chirurgical Society Sir James Paget described a form of change in bones to which he gave the name of *osteitis deformans*, thinking it to be a form of chronic inflammation. It is of slow growth, and commences in middle age or advanced life. Except for the pains to which it gives rise, it has no ill effect upon the general health, and the chief complaint arises from the inconvenience suffered from the shape, size, and direction of the afflicted bones. In some cases the skull is attacked, and, though its weight is greatly increased thereby, there are no mental disturbances occasioned by its presence. The spine, whether overweighted by the overgrown skull or diseased itself, is apt to sink and be shortened by an increase in its natural curves. While the body is thus shortened, the pelvis is made broader by the changes in the necks of the thigh-bones, which become nearly horizontal. The long bones of the lower extremities are very commonly implicated, and become curved and misshapen from the weight they sustain. Nevertheless they remain strong and useful. The pains occasioned by this malady are generally described as gouty or rheumatic, but they are neither nocturnal nor periodical. Such patients do not furnish the opportunity of seeing the progress of the

earlier stages, but it seems probable that there is an inflammatory action of a very chronic character going on with some softening, and the production in considerable quantities of imperfectly developed structures and accompanied by an increased blood-supply. It was doubtful whether this slow inflammatory process continued to the last, or whether it ceased and was followed by a consecutive hardening of the new growths. This paper gave rise to an interesting discussion. Mr. Barnwell thought that what was gained in size was not accompanied by corresponding increase in weight, so that in reality the change was rather an osteo-porosis than an osteitis deformans. Sir Wm. Gull remarked on the curious choice of situation selected by it. It would affect the hyoid bone and leave the phalanges free. It also did not seem certain whether it was symmetrical or not. Sir James Paget, in replying, pointed out that it differed from chronic rheumatic arthritis, so admirably described by the late R. Adams of Dublin, in the fact that the shafts of the long bones were affected; no mention of this change having been made by Mr. Adams in his exhaustive memoir.

Amidst the other uses of chloral is that of its external application. It is found to relieve pain, and also to act as a detergent and to arrest hemorrhage. Such use of it has been extensive by Dr. Dowse, the Superintendent of the Highgate Infirmary. He has found it useful as an application to recent flaps after amputation. By such application there is not only relief from local pain afforded, but the unpleasant sensations felt in the extremities of the lost limbs, as in the toes for instance after amputation of leg, have also been avoided. When injected betwixt the flaps, it relieves the reflex startings so commonly present. The use of chloral as an external application to sores, etc., took its origin, with Dr. Dowse at least, in a sort of despair as to what to do in a case of fungus hæmatodes of the mamma. All sorts of disinfectants had been applied without satisfactory results, so chloral was tried, with such good effects that further trial of it was made. A few cases briefly stated will illustrate its action. When applied to a large cancerous sore on the top of the head, it not only relieved the pain, but the discharge, previously most offensive, was greatly improved and rendered less offensive. In a case of cancerous ulceration of the os uteri, in combination with chloride of zinc great relief was experienced. An impetiginoid eczema of the face, which was obstinate and painful, yielded to a solution of chloral and glycerin. The relief from pain was complete, and in a few days the surface began to clean and healed rapidly. In a case of osteo-arthritis, where the pain was very intense in the knees, which were so tender that the least touch was intolerable, flannels wrung out of a hot solution of chloral gave the greatest relief. In a few days the pain and swelling had subsided, the joints could be manipulated, and in a week all active signs and symptoms had disappeared. In a paraplegic patient most agonizing abdominal pains were experienced, which usually went off in attacks of diarrhœa. The internal administration of chloral and morphia failing to afford relief, a blister was placed in the epigastric region, and the sore dressed with chloral. The results were such as to astonish the patient. Similar treatment was most effective in a case of pleurodynia, where other measures had failed. In an axillary abscess, the local application of chloral led to great relief. The four solutions used by Dr. Dowse are as follows: 1. Chloral ʒiv, water Oi. 2. Chloral ʒiv, glycerin ʒi, water Oi. 3. Chloral ʒiv, solution of chlorinated zinc ʒiv, water ℥xvi. 4. Chloral ʒiv, solution of perchloride of iron ʒii, water ℥xvi. "The application of these solutions to raw surfaces requires some care in manipulation. Folds of lint just the size of the part must be saturated with the solution, and brought into close contact with it; then three or four layers of lint wrung out of hot water placed upon them, and over all a piece of oiled silk."

At the Obstetrical Society the most interesting subject has been that of a successful case of operation for extra-uterine fœtation. The operation was performed by a rising provincial surgeon, Mr. Jessop, of Leeds. It is very rarely that such an operation is successful. The details are scarcely of general interest, but those who are desirous of seeing them will find them in the *Lancet* of November.

The health of London is very satisfactory on the whole, and there is comparatively little zymotic disease about at present, except smallpox, which is becoming rather active again, especially among the unvaccinated. It is an awkward fact for the agitators against this useful measure that, although the unvaccinated are but such a small proportion of the community at large, of the recent admissions to the smallpox hospital the number of vaccinated and unvaccinated are about equal. This is a sufficient argument in itself to demonstrate how great is the liability of the unvaccinated to take smallpox when the opportunity offers itself. Nevertheless, the agitation goes on, and has received an unfortunate stimulus in the death of two children from pyæmia after vaccination, at Liverpool. I think the agitation has its head-quarters amidst the population of the crowded manufacturing areas of Lancashire and Yorkshire. The Keighley guardians who were recently confined in York Castle for not enforcing the vaccination act have returned to their families, and were received by a large crowd with a band of music, who escorted them from the station to a public meeting, where their sufferings for the cause met with much sympathy. The mischievous agitation is leading to all sorts of manœuvres. After the announcement

of a birth in the *Times* and other leading papers, the father usually receives a card or circular detailing in inflamed language the horrible dangers which beset the little operation of vaccination. Of course the agitators make the most of any case occurring after vaccination, forgetting that smallpox may recur in the same person, and that one attack is not always a certain protection against a second. Only the other day I remarked to a hospital patient how severely she had been handled by the smallpox, when she informed me that she had had it twice, and that it was the second attack which had disfigured her so; adding, "it was because I had not been vaccinated," exhibiting a faith which no doubt would excite the derision of the north-country agitators. Of the way in which this fearful disease is spread a striking instance occurred lately. A woman was fined the other day for having a child ill with smallpox, and, instead of having him removed, she had him covered with wadding which she had in the house for the purpose of lining mantels. This means of securing the spread of the disease reminds one of the death of the bridegroom in the finishing scenes of "Alton Locke," in consequence of typhus poison in his coat, fresh from the tailor's house, where typhus was rife.

Very trifling operations sometimes are followed by most unpleasant consequences. I have just mentioned that in two cases lately, death followed vaccination, apparently from pyæmia. A case of death following a hypodermic injection is just recorded. A lady who had fallen into the habit of injecting morphine to relieve sickness to which she was very liable, was seized with tetanus and died. It transpired that she was scarred with marks of old injections, as well as bearing marks of recent origin; and in a wardrobe were found a number of phials of solution of morphine, an injection-syringe, and several rusty steel needles. The use of the latter led to the unfortunate consequences. This case teaches another lesson, viz., the spreading habit of secretly resorting to the hypodermic use of morphia,—the most dangerous of all forms of narcotic indulgence.

The growth of the resort to narcotic agents, now so universal, will furnish a grim chapter for some writer in the future. It will be found not that persons are more self-indulgent now than ever before, but that the tax upon the nervous system entailed by modern exigencies is such that it is impossible to maintain the strain without resort to some form of narcotic. One takes chloral nightly, another uses injections of morphia, a third indulges in tea, a fourth takes alcohol too freely, a fifth is given to large draughts of genuine wine, while a sixth goes in for Easton's syrup, and a seventh resorts to digitalis and iron as a species of dram. This craving for narcotic agents is indicative of the taxation of the nervous system in the present day. Those who are specially interested in this system and its maladies will hail with satisfaction the appearance of Prof. Ferrier's work on "The Functions of the Brain." It is a handsome little volume of some three hundred pages. It commences with the structure of the brain and cord; the functions of the cord, the medullary and the other portions of the central nervous system. The phenomena excited by electrical irritation of the cerebral hemispheres form a chapter by themselves; and for many readers this chapter will have the greatest attractions. It contains many excellent plates of the brains of monkeys and other animals experimented upon; and numbers are used to indicate certain spots to which reference is made in the text. These are also very useful for the purpose of comparison betwixt different brains; and the whole chapter clears up very satisfactorily the localization of function in certain parts: some being devoted to motor purposes, while other localities are connected with the special senses. The hemispheres are considered physiologically in one chapter, and psychologically in another. The last chapter will excite the curiosity of many readers, who will be desirous of knowing what the learned professor has to say on the subjects of the emotions, the growth of volition, motor memory, and the control of ideation. Dr. Ferrier has the capacity to say in definite language what he means, and his style is clear and lucid, being also considerably more classical than that of the bulk of writers of the present day. However, ne sutor ultra crepidam, and the correspondent must not trench upon the editor's ground, and start writing a review. This much may, however, be said, that the perusal of the work will make many readers impatient to see the treatise on the Diseases of the Brain, which will follow the present work in the course of time.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, OCTOBER 26, 1876.

The PRESIDENT, DR. H. LENOX HODGE, in the chair.

DR. JOHN ASHHURST, Jr., presented the specimens and read the report of "Cases of Compound Fracture of the Skull occurring in Children, with remarks." (See original communication in current number of the *Times*.)

Dr. WM. PEPPER said, in connection with the second case, he desired to put on record a case which he had recently seen in consultation with Drs. Stewart and A. H. Smith of this city. The absence of any complete previous history diminishes the interest of the

case, while as bearing upon the diagnosis it possesses considerable interest. The patient was a government contractor, about thirty years of age, a native of Illinois, but was in this city on business. He first complained of violent neuralgia over the left eye, for which he consulted Dr. Stewart, who gave him large doses of morphia and quinia, with temporary relief. A few days later pain returned, and soon after he had a convulsion, which was followed by a state of great nervous excitement. This was gradually replaced by dulness and deepening stupor. It was nearly forty-eight hours after the attack when Dr. Pepper saw him for the first time. His pulse was then regular, but there was paralysis of the right arm and leg, and partially of the right side of the face; there was no paralysis of the eyelids, but the patient was completely aphasic, while he could be made to understand by the use of signs. His pulse kept falling, he had one or two more general convulsions, but after this no more severe ones, although there were slight convulsive movements limited to the right side of the body. Towards the close there were also frequent attacks of convulsive movements of the muscles of the face, presenting themselves chiefly in the shape of quick twitchings of the muscles about the mouth on the right side, and perhaps on the left slightly. Later followed deepening stupor terminating in unconsciousness, continued dropping of the pulse until it fell to 65, 60, and 48, remaining regular; retraction of the head, inability to swallow, and loss of power over the rectum.

The treatment was based on the supposition that there was a syphilitic tumor pressing upon the under surface of the anterior lobe of the left hemisphere. There were, however, no other signs of constitutional syphilis; vision and hearing were unimpaired, he had good teeth, there were no scars or loss of substance of the nose, no enlarged glands, no mark of secondary eruption or periostitis of the superficial bones. Still, as there was no previous history obtainable, and no evidence of injury to the skull, the diagnosis of tumor was made. At the *post-mortem* examination an old encysted abscess was found between the dura mater and the surface of the brain over the left frontal bone, extending under the surface of the left hemisphere, and producing a strongly marked depression of the fissure of Sylvius and adjacent parts. The membranes were thickened and dense. There was no lesion of the brain-substance between them, but a slight softening of the most superficial layers of the cineritious substance. The cavity contained five or six ounces of fetid pus, but there was no injury to the bones of the skull. The track of the left meningeal artery was seen to be the seat of caries, so that when compared with the track of the artery on the opposite side, it was found to be three or four times as large and with a porous surface of bone.

It was subsequently learned from the family that he had been living away from home, and nothing was known with regard to any accident which may have occurred to him.

Large doses of iodide and bromide of potassium diminished the severity of the convulsions, but the case ultimately terminated as above.

Extra-uterine pregnancy. By Dr. WILLIAM PEPPER.

Margaret M., æt. 53, married, nativity Ireland; has been in this country for twenty-seven years, and has been married twenty-four years. One year after her marriage she ceased menstruating, and noticed that her abdomen began to enlarge. She then told her friends that she was pregnant. But as time passed on to about (as she thought) five weeks before her time of being confined, she noticed that her abdomen began to grow less, and her friends wondered why she was not confined. During the three years following this time, she had two miscarriages, but I was unable to find out at which month of gestation they occurred. She then had two living children; the one died three days after it was delivered, and the other is still living. After these living children were born, she had two more miscarriages, and the last one occurred about thirteen years ago. During all this time her health was comparatively good. About eighteen months ago she was admitted to the surgical wards of the Philadelphia Hospital with necrosis of the bones of the right foot. She remained in the surgical wards for eight months, and was then discharged to the out-wards. She remained in the out-wards until October 11, 1876, at which time she was transferred to Dr. Pepper's on the medical floor. The woman was very weak and had intractable diarrhœa, with which she rapidly sank, and died on October 13, 1876.

Post-mortem examination was made twelve hours after death, and the following conditions were found:

No rigor mortis; body not well nourished; the lungs and heart were quite healthy; the liver was slightly fatty; spleen normal in size; kidneys were fatty and somewhat contracted; the intestines were slightly congested, and lying over the superior strait of the pelvis was a hard tumor, which was quite movable, and was only attached to the omentum and to the right Fallopian tube; ovaries and uterus were quite normal.

She was living with her husband until eighteen months ago, when they were both admitted to the hospital.

The specimen was referred to a special committee consisting of Drs. F. P. Henry, J. E. Mears, C. B. Nancrede, Morris Longstreth, and E. O. Shakespeare, for examination and report.

Dr. HODGE asked Dr. Pepper whether there had been at any time simulated labor.

Dr. PEPPER could not answer; he only knew that labor was looked for, but did not come on.

Dr. HODGE said that at about nine months there is generally a simulated labor, even in cases of abdominal pregnancy. So that if there was none in this case it belongs to a class of very rare cases.

Extensive disease (syphilitic) of pericardium, pleuræ, and peritoneum; paracentesis of chest and abdomen. By Dr. WM. PEPPER.

James Murray, æt. 26, single; nativity, Philadelphia; occupation, huckster. Admitted August 29, 1876, to Philadelphia Hospital. Family history good. He stated that he had been a healthy man until five years ago, when he contracted a multiple chancre, which was followed by buboes, and five months after by an eruption, which has resisted treatment obstinately. He had been a drinking man, and in the habit of drinking large quantities of undiluted liquors early in the morning before taking any food.

About the first of last May he noticed a slight yellowness of the skin, and his abdomen enlarging; he also noticed that the quantity of the urine was less than natural. Since then his health had been failing fast, and his belly had greatly enlarged, until it measured forty-three inches at the umbilicus; also great œdema of the lower extremities and of the lower parts of the belly walls. Tongue was slightly coated, and some symptoms of indigestion and some diarrhœa. He passed twenty-eight and a half ounces of urine daily, which was of a very high color, but did not contain any albumen. On September 10 he was suffering extremely from overdistention of the abdomen. In addition, it was found that an effusion was occurring in the left pleural sac. The heart was pushed towards the right, apparently; but it was impossible to detect any apex-beat, and the cardiac sounds were very feeble and distant. In addition to this, dulness extended farther to the right of the lower part of the sternum than seemed explicable merely by displacement of a healthy heart. Paracentesis was performed through linea alba, and twenty-three and a half pints of light straw-colored fluid were drawn off, with immediate relief. On September 29 the effusion in the left chest had increased, so as to cause great distress. By means of an aspirator eight and a half pints of amber-colored fluid were drawn off. This was followed by great relief; but the heart did not return to its normal position, nor did its sounds or apex-beat become more distinct. The left lung expanded very imperfectly, and it became evident that, with the exception of the upper lobe, there was great thickening of the pleura over this lung. On October 4 the patient's distress was again extreme, and colliquative diarrhœa had set in. The dulness over the left lung now had attained its former proportions, and paracentesis was again performed, but only succeeded in drawing off eighteen fluidounces. The abdomen was tapped a second time, and five and a half pints of fluid were drawn off. The patient was somewhat relieved, but slowly sank, and died October 22.

Autopsy.—Brain not examined.

Right lung presented some thickening of pleura, with adhesions in points. On *left* side both layers of pleura were enormously thickened and matted together, so as to form a layer nearly one-half inch thick. The pleural sac was thus obliterated, with the exception of two cavities in the substance of the thickened pleuræ. One of these, in the side, was capable of holding a pint, was lined with shreddy lymph, and was evidently the point from which the last accumulation of fluid had been drawn off. The other was small, with capacity about two fluidounces, and was seated on the posterior surface of the lung. The left lung was compressed, but free from organic disease.

The pericardial sac was obliterated and the membrane enormously thickened. There had evidently been old pericarditis. The cardiac layer was encrusted with calcareous matter. Then came layers of organized lymph, and then the much thickened parietal layer. The left lung was closely adherent to the outer side of the pericardial sac.

The liver was fatty and cirrhotic. There was old peri-hepatitis, affecting not only the convexity, which was covered with layers of false membrane, but the concavity, and especially the region about the transverse fissure, where dense thickening of the capsule and cellular tissue had occurred. It could not, however, be found that any actual compression of vena cava had resulted. The walls of the gall-bladder were white, dense, and fibrous.

The spleen was enlarged, its tissue firm; trabeculæ enlarged. Capsule presented marked localized peritonitis. The kidneys were in a state of albuminoid degeneration.

Dissecting aneurism of the abdominal aorta. By Dr. W. H. EDWARDS, for Dr. EDWARD R. STONE.

C. W. K., æt 46 years; German. He had been for many years a bar-tender, but when my acquaintance with him began he was engaged as a collector for a clothing-store in the city. He had been in the habit of drinking moderately of wine and beer, but rarely sufficient to intoxicate him. He had never had syphilis, and his previous health had been excellent. I saw him for the first time in May, 1875, when he told me that he had been suffering for some weeks (he did not remember how many) with pain in the left hypochondriac region. The character of the pain was usually dull, but sometimes it became sharp and stinging. There was also at times pain in the back at the lower dorsal vertebræ. His appetite was rather variable, with occasional dyspeptic symptoms, but no vomiting

or pain in the region of the stomach. Bowels regular.

Examination showed a very tall and quite muscular man, rather slender, but apparently in fair condition. Lungs healthy; heart-sounds natural, excepting that they were somewhat indistinct; splenic dulness normal; liver not enlarged.

After visiting him twice he passed out of my hands until the following November, when he told me that he had not had any relief from the pain, which had grown so severe that he was no longer able to attend to his business, as the walking aggravated the pain in his side, and the jar of riding in a carriage or car was even worse. He had become much thinner and ill-looking, and his appetite and digestion were somewhat impaired. The pain still occupied about the same situation, but had spread itself out to occupy nearly the whole space between the nipple and lower border of the ribs, sometimes being felt in the epigastric region. Repeated examinations by myself and others failed to find evidence of a tumor or other organic disease in any of the organs; the urine was several times examined for albumen, with negative results. Dr. S. H. Griffith made a microscopical examination of the blood, to determine the relative quantity of corpuscles. The red were moderately diminished in number, but without any real increase of white cells. It would be tedious to go into the details of the case during the several months he was under my care. It will be sufficient to say that he steadily lost ground, becoming gradually weaker and more emaciated. The pain became more continuous and severe, requiring the constant use of the hypodermic syringe.

Early in the summer of 1876 he gained admittance into one of our hospitals, and only returned home two weeks before his death. During his stay in the hospital he had rapidly failed. Emaciation was extreme, with commencing bed-sores on trochanter and sacrum. A large tumor was now very evident, extending from the epigastrium to the umbilicus, the dulness of which was continuous with that of the liver and the spleen. He had occasional vomiting, and his stomach had great difficulty in digesting even the simplest diet. On palpation the tumor seemed in part solid; at other points fluctuating. On ausculting over the mass a splashing sound was heard, synchronous with the pulsation of the aorta. He died quietly on October 20.

Post-mortem examination, thirty hours after death. Chest and abdomen only examined. Pleuræ, a few old adhesions on both sides; slight effusion of clear serum in the left cavity. Lungs healthy. Pericardium normal. Heart rather small; ventricles contracted, but otherwise healthy. On opening the abdomen a large tumor was seen, corresponding with the swelling noticed during life. The stomach was much enlarged, and was stretched over the mass which had grown up behind it. Its walls appeared healthy. Mucous membrane softened by post-mortem decomposition.

The pancreas was spread out on the upper surface of the tumor, and at first sight appeared enlarged, but on closer examination was found to have been merely flattened out by pressure. Its tissue was healthy.

The liver was in contact with the right side of the mass, but had no connection with it. It showed two or three wedge-shaped spots on its surface, looking like infarctions. The cells appeared healthy, but the whole organ was congested.

The spleen was also in contact with the growth, but was not involved. It was healthy, excepting slight congestion.

The transverse colon was attached by the fold of peritoneum to the lower part of the tumor, and was put on the stretch by the large size of the latter.

The kidneys were congested, but did not appear otherwise unhealthy.

The tumor itself well filled the upper part of the belly. It was covered with peritoneum, which had apparently been pushed forward from the back part of the abdominal cavity. It was directly upon the great vessels of the abdomen. The tumor was felt to contain cysts, and two of these, very near the surface, were ruptured in removal, one containing clotted blood, the other a fluid having the appearance of pus. It was reserved entire for examination, and with it a fragment of liver and a kidney.

The specimen was referred to the Committee on Morbid Growths, which reported, November 9, 1876, as follows:

The abdominal tumor is found to be a dissecting aneurism filled with firmly-organized blood-clots. The portion of the abdominal aorta remaining attached to specimen is highly atheromatous, and apparently eroded at one or more points.

Dr. C. B. NANCREDE asked what method had been used to determine the fact stated, that the number of red blood-corpuscles was diminished.

Dr. E. R. STONE said the corpuscles were counted by Dr. Griffiths according to the method recently recommended by Dr. E. L. Keyes in the *American Journal of the Medical Sciences* for January, 1876, slightly modified by Dr. Griffiths, and thus described by him:

"The diluting fluid was that used by Dr. Keyes—urine; to each ounce of which was added gr. v of corrosive sublimate, and the mixture then reduced to a specific gravity of 1020. The dilution of the blood was 1 to 250. Not being at that time the possessor of Hayem & Nachet's hæmatimeter, I had Mr. Zentmayer make for me a cell .01 inch deep. Taking .01 inch square of the field, I had a cube of the diluted blood .01 inch in each direction. I observed the precaution not to

allow the fluid to reach the edge of the cell, securing the cover and preventing evaporation by introducing under the cover some water.

"Using this, I made a number of counts; the average being in my own case 426 red globules; in the case of Dr. S. 425. In the case of the patient the average of six counts was 313. These numbers were not large enough to determine anything about the white corpuscles, except that they were not markedly increased relatively to the red.

"Therefore I considered the case was one of marked reduction of the number of red globules, and probably also of the white in the same proportion.

"I should add that my dilution may not have been accurately 1 to 250, but what it was for one count it was for all, so that the comparison remained good."

Cancer of the vagina, fibroid tumors of the uterus, and secondary cancer of the lungs and liver. By Dr. W. H. WARDER.

H. C., colored, aged 50, occupation domestic; entered the Philadelphia Hospital October 19, 1875. She had never had any children. She always suffered more or less pain at the menstrual period, and for the last five or six years the dysmenorrhœa had greatly increased, and was attended by menorrhagia.

Two years before entering the hospital she noticed a hard lump in the lower portion of the abdomen, which she attributed to a strain from lifting a heavy tub of clothes. From this time she had suffered with more or less pain in the pelvic region, irritability of the bladder, constipation or diarrhœa. At the time of entering the hospital there was more or less discharge from the vagina of a thin, watery character, irritating the external parts and somewhat offensive. Up to this time there had been no metrorrhagia.

Soon after this she said her sickness became very irregular, and she hardly knew when she was unwell. Six months after she entered the hospital the case came under my observation. Upon a careful physical examination, I found the vagina greatly contracted and full of soft granular masses of a papillary character, and bleeding freely upon the passage of the finger to the cervix uteri. The cervix could be easily detected, and was movable and but slightly hardened. By bimanual palpation I found the uterus very much enlarged, with nodular masses upon its external surface. By simple palpation I could easily detect the tumor above the superior strait, reaching a point almost midway between the umbilicus and the symphysis pubis. The tumor was movable in the abdominal cavity.

The woman was comparatively well nourished, but complained of general debility and loss of appetite.

Up to this time there had been no very severe hemorrhage. She did not complain of any special pain in the thorax or in the region of the liver. There was no difficulty in respiration, and the heart's action was normal. I diagnosed the case at the time as epithelioma of the vagina and fibroid tumors of the uterus.

During the last six months, the case has not been under my observation. Dr. Moffet, resident physician, Philadelphia Hospital, very kindly furnished me the following notes of the case during that time. "Has complained of a good deal of pain of sharp lancinating or burning character in the lower portion of the pelvis. More or less hemorrhage, and offensive discharge. During the last two months complained of great difficulty in respiration, with all the symptoms of œdema of the lungs. A weak, small, and irregular pulse. The difficult respiration was greatly relieved by doses of 10 gr. carb. ammon. and 15 drops tincture digitalis. There was no special pain in the region of the liver. She died October 1, 1876."

Post-mortem examination. Lungs filled with secondary cancerous deposits; spleen normal; the liver contained brain-like deposits very generally through it; kidneys normal; uterus showed sub-serous, interstitial, and sub-mucous fibroids; one large tumor attached to the fundus externally had a cystic character; vagina very much contracted, the walls hard and indurated, filled with papillary growths of a jelly-like consistence. These extended up to the cervix uteri, slightly involving the same; bladder normal; rectum normal.

The specimen was referred to the Committee on Morbid Growths, which reported, November 9, 1876, as follows:

"Your Committee have examined the tumors presented by Dr. Warder, and beg leave to report that the growth upon and in the walls of the vagina is *carcinoma gelatinosa*. At only a few points can any remains of the cells undergoing colloid degeneration be found."

Dr. J. EWING MEARS said with regard to the occurrence of primary cancer of the vagina, although rare, two cases had been presented to this Society within a comparatively short period of time, in each of which an operation was performed, one by Dr. Parry and another by himself. In both cases the uterus was not involved. Dr. M. also thought that probably primary cancer of the vagnia would not be found so rare could the cases involving vagina and uterus be sufficiently early examined,—that is, before the disease had extended to the uterus, which may not always be the place of beginning in these cases.

Dr. ASHHURST said that primary cancer of the vagina was undoubtedly a rare affection. He had himself seen but one case, in a patient supposed to be suffering from hernia, but who, on examination, was found to have cancer of the vagina, with secondary implication of an inguinal lymphatic gland. Vaginal cancer

spreading either upwards from the vulva or downwards from the uterus was, however, comparatively common.

Dr. WARDER said that at the first examination there was no involvement of the vulva, and he did not come in contact with the mass in the vagina until the orifice had been passed half an inch. The diagnosis was made from the general characters rather than a minute examination, among which was the peculiar smell; for, although an examination of the papillary growth was made by the resident physician, nothing characteristic was discovered.

Tumor of neck. Dr. LOUIS STARR, for Dr. B. J. RUDDEROW. Operation by Dr. W. P. JANNEY.

M. S., æt. 21, single, having a healthy family history, first noticed the growth, which she attributed to an injury received while playing with some of her companions, seven years ago. It was then about the size of a small hickory-nut, painless, slightly movable, and hard. In this condition it remained until last March, when it commenced to grow with great rapidity. Four months later she began to feel sharp, shooting pains through the tumor. From the middle of September to the day of the operation, October 19, 1876, the patient had a chill followed by fever every day; there were, however, symptoms of phthisis present. Before the operation the following observations were made: tumor superficially seated on left side of the neck, in a space bounded in front by the sterno-cleido-mastoid muscle, below by the clavicle and spine of the scapula, and behind by the cervical vertebræ; it is nodulated, movable, and at its lower edge there is a bright spot of inflammation about the size of a silver dollar; there is no enlargement of the neighboring glands. After the patient was well under the influence of ether, a simple elliptical incision was made and the mass torn from its bed. The edges of the wound were then brought together and a dry dressing applied. Since the operation there has been no return of the hectic fever, and the patient has done well in every respect.

The specimen was referred to the Committee on Morbid Growths, which reported, November 9, 1876:

"The tumor presented by Dr. Starr as removed from the neck is a simple lipoma, presenting at some points considerable small-celled infiltration of the connective tissue."

Elephantiasis of the penis. Presented by DR. E. O. SHAKESPEARE, for Dr. F. DUFFY, of New-Berne, N.C.

The patient first placed himself under treatment of Dr. Duffy some time last January. At that time he was apparently in robust health. He could give no history of inherited vice of any kind, and previous to the present attack never had a disease or an injury of the genitals. Two weeks anterior to the first consultation of Dr. D., the penis had become erect, and had so remained without interval of relaxation up to date of visit. At that date the organ was of average size, and exhibited no symptom of disease other than the previously mentioned persistent erection. It may be remarked here that while the penis was not at this or at any subsequent period painful, yet it was then, and continued to be, in such a hyperæsthetic condition that considerable care had to be observed lest it were suddenly jarred or moved. Two weeks later the patient was again seen; meanwhile the organ had grown rapidly, the erection being constant. Half-way between the corona glandis and symphysis pubis the circumference measured seven inches. At this point the circumference was slightly greater than anywhere else, the penis now having a slightly perceptible spindle form. After this the organ rapidly increased in volume, growing equally in all its parts. The skin soon became so distended and tense that, in order to avoid rupture, a lateral longitudinal incision was made on each side. Despite everything that was done for the relief of the unfortunate man, the member continued to grow at such a prodigious rate that at the end of March the circumference had reached twelve inches. Amputation was then advised and consented to. The penis was removed without trouble by the loop of the galvano-cautery applied as closely as possible to the pubis. The stump healed kindly. It should be particularly noticed that, concurrent with the growth of the penis, the glands in the right inguinal region became gradually enlarged from the size of a pigeon's egg, when the patient was first seen, to the dimensions of the two fists when the penis was removed. The patient had not noticed any glandular swelling prior to the erection. During all this time the body temperature was normal, except possibly towards the end. The patient became very despondent, losing appetite and flesh. An intercurrent attack of pleuritis occurred a little before the amputation, but it was so slight that it would have escaped notice entirely, but for the physical signs detected during an examination of the thorax. No glandular enlargement could at any time be discovered anywhere else than in the location above indicated. Soon after the amputation, the glandular swelling began to disappear. Owing to a protracted illness of Dr. Duffy which occurred at this time, the patient was lost sight of for several months. When next seen he was rapidly sinking, apparently from mere inanition and anæmia. The glandular enlargement had entirely disappeared, and no metastatic deposit could anywhere be seen, or inferred from symptoms which the patient now presented. The man soon died, but, unfortunately, no autopsy could be obtained. It is believed that this man had been suffering with elephantiasis of the penis. The

points of greatest interest connected with the case are probably the enormous size of the organ, the rapid development of this size, the concurrent swelling of the inguinal glands, the complete dissipation of this swelling between the time of amputation and death, and death by exhaustion without indication of secondary deposits.

Dr. ASHHURST said that although glandular enlargement was not a very frequent accompaniment of elephantiasis Arabum, it was occasionally met with. The older members of the Society would remember the specimens of enormously enlarged cervical and bronchial glands (the latter the immediate cause of death) presented by him in 1864. (See Proceedings, vol. ii. p. 155.)

In this case several broad patches on the body closely resembled Arabian elephantiasis, and were considered to be of that nature.

Dr. R. M. BERTOLET asked whether there were any secondary deposits as determined by post-mortem examination.

Dr. DUFFY said glandular enlargement had existed in the groin on the right side before incision was made, but subsequently this disappeared, and there was none anywhere in the body.

The specimen was referred to the Committee on Morbid Growths, which reported as follows, December 14:

"An examination of the penis referred to the Committee upon Morbid Growths shows microscopically an increase in the size of the papilla of the cutis; the layer of epithelial cells covering the same is much thickened. A transverse cut of the vessels presents their lumina much diminished in size, while the connective tissue surrounding them is found increased. No nerves were seen in the section. The hyperplasia depends upon a hypertrophy of the connective tissue in the organ, which tissue is observed as fibres running in every possible direction. This peculiar arrangement of structure would determine the disease to be 'elephantiasis Arabum.'"

REVIEWS AND BOOK NOTICES.

ON TRACHEOTOMY, ESPECIALLY IN RELATION TO DISEASES OF THE LARYNX AND TRACHEA. By W. PUGIN THORNTON, Surgeon to the Hospital for Diseases of the Throat, and to the St. Marylebone General Dispensary. Pp. 70. (Philadelphia reprint.) Lindsay & Blakiston.

This little manual deals with the matter included within the subject title in a systematic manner: first treating of the anatomy of the parts, then of the operation, the dangers attending its performance and the after-treatment, the diseases and injuries requiring tracheotomy, and finally of the operation in other diseases, chiefly those inducing dyspnœa by external pressure or paralysis. The book is illustrated with eighteen wood-cuts and three photographs, the latter being views of pathological specimens. While little new is added to the operation, the book is made interesting by the narration of twelve cases new to medical records, most of which have occurred in the author's experience. The literature is not neglected, however, many references being made to papers and cases bearing upon the subject. We are pleased to see Drs. Wm. Hunt and Cohen mentioned in this connection.

An occasional evidence of carelessness in the make-up is to be regretted. Thus, on page 63 we read that the "*integuments* between the *sterno-cleidi* muscles so as to form an *all but plane surface* between them."

DISEASES OF THE BLADDER, PROSTATE GLAND, AND URETHRA, etc. By FREDERICK JAMES GANT, F.R.C.S. Pp. 470. Philadelphia, Lindsay & Blakiston.

This manual, better known as The Irritable Bladder, is here presented in an enlarged form, and embracing the considerations of prostatic and urethral disease. The affections of the kidney are discussed so far as to account for abnormal conditions of urine not dependent upon the organs included in the title. It would have been in better judgment, we think, to have treated of the kidneys and ureters as separate subjects, much being demanded by the student of the omitted organs, but little given. Disease of the urinary tract is an easily interpreted theme, while one in which the initial organ is virtually omitted is of necessity difficult to treat satisfactorily.

Judging the volume, however, by its own standard, we find that the subject matter is treated after a strictly conventional method. It presents nothing new, yet withholds nothing of importance. Among the secondary omissions may be mentioned the absence of other than incidental comment on the influence of the sexual passion upon the diseases of the urino-genital tract, and the insufficient attention the subject of perineal abscess has received. The illustrations are very inadequate. The reader can obtain no correct impression of the various urethral instruments described, since not a single figure is used in this connection.

The general reception awaiting this volume is apt, if our experience be that of others, to be a cold one, should copies with uncut leaves be the only ones offered for sale. It is not probable that one physician in five hundred values a book on account of its uncut leaves. To satisfy the small number who desire to rebind their copies, a limited issue of such would be all-sufficient; but those for general sale should have their leaves cut. Life is too short to spend any moments in simply preparing a book to be useful.

GLEANINGS FROM EXCHANGES.

THE TREATMENT OF ABSCESSES BY HYPERDISTENTION WITH CARBOLIZED WATER (*The British Medical Journal*, November 4, 1876).—Mr. George W. Callender calls attention to the difficulty which often occurs in the treatment of abscesses, owing to their cavities being divided by septa, or extending among tissues in such a way as to be really multilocular. In such cases, when they are washed out in the ordinary way, they are not treated to advantage because parts of them are ineffectually cleansed. By hyperdistention of such abscess-sacs, carbolized water can be forced into cavities, however complicated and irregular, and this treatment can thus effect for these abscesses the same result as an ordinary injection will insure with a simple abscess. Mr. Callender describes three cases, one of angular curvature of the spine, another of disease of the lumbar vertebræ, and a third of renal calculus, each attended with abscesses of this character, and in all of which hyperdistention was most beneficial, removing all the serious constitutional symptoms at once, and speedily reducing the abscesses to small non-suppurating sinuses.

The operation may be performed while the patient is under the influence of ether, or the integuments may be frozen by the ether-spray. The following are required: a scalpel where an incision is needed, no open sinus existing; carbolic acid lotion (one part in twenty) diluted to one in thirty by the addition of warm water before using it; a perforated elastic drainage-tube; carbolized oil (one in twelve) on lint for dressing the wound, and gutta-percha tissue for covering this; some ordinary adhesive plaster; some tenax to receive any subsequent discharge (which, however, is very slight); an ordinary two- or four-ounce syringe. When it is desirable to make continuous pressure over an abscess after opening it, a pad shaped to the needs of the case, and filled with shot, will be found useful. It acts more effectually than a sand-bag, and is easily made and adapted.

The operation is begun by cutting into the abscess (if no sinus exist), the opening made being of sufficient size to admit one of the fingers. The pus is then allowed to escape, the abscess being emptied as completely as possible. The nozzle of a syringe is next passed through the opening, and the skin is drawn closely around it by the operator with his left hand; the contents of the syringe are then passed into the abscess-sac. Care must be taken, in doing this, that no pressure is made upon the abscess-wall, or the distention of the sac will be incomplete. Either by using a syringe which throws a continuous stream, or equally well by closing the wound with a finger whilst the syringe is being refilled by an assistant (very little fluid being lost in its reintroduction), the abscess-sac will presently distend quite to or even beyond its original size; and, under these circumstances, the carbolized water necessarily finds its way (as a rule which has few exceptions) into all parts of the cavity, however irregular, and along any channels leading from it. When the abscess has been opened, the amount of injection may be roughly measured as being rather in excess of the quantity of pus let out. When distention has been effected, the fluid is allowed to escape, and if much pus be mingled with it, a second injection may be practised. An elastic drainage-tube, its size varying with that of the abscess, is then inserted and secured, and over the end of this, and over the wound, a piece of lint, twice folded and soaked in carbolized oil, is laid. This is covered with a sheet of gutta-percha tissue and some tenax, and these dressings are secured with some ordinary plaster.

Subsequent treatment consists in the renewal of the dressings, which, to myself, it seems desirable to see to daily. The drainage-tube is gradually shortened as the abscess-wall contracts, and through its canal, if there be any sign of puriform discharge, a little carbolized water may be occasionally injected.

THE FLOW OF BLOOD THROUGH TUBES OF SMALL DIAMETER (*The Medical Examiner*, November 2, 1876).—Recently a very important paper on the above subject was presented to the French Academy of Sciences by M. Haro. He says that, after various attempts, he at last constructed an instrument which he terms a "transpirometer," and which simply consists of a capillary tube of a certain diameter. Then, adopting the word "transpirability" instead of "viscosity," he goes on to give the following conclusions:—(1) Heat much increases the flow of defibrinated blood, and this effect is much increased as the corpuscular element is larger, whilst on the serum heat has the same action as on distilled water. The inferences to be drawn from this experiment are important; thus, it is admitted that heat modifies the diameter of the small vessels and increases the force of propulsion of the blood, but it is not less certain that every change of temperature of the mass of the blood itself acts in like manner. Heat diminishes and cold increases the resistance of the blood to the vessels. (2) Carbonic acid retards the flow of the blood most decidedly. This discovery will possibly explain some physiological facts. For example, the necessity we find of breathing, which is almost uncontrollable, is explained partly by the fact that the impure blood does not flow along rapidly till it meets with oxygen; then its rate of progress is entirely altered. M. Haro thinks this is a much more plausible explanation of the fact of the case than the usual reference to the different functions of the pneumogastric nerve. In asphyxia from carbonic acid the pulse is slackened and the blood-pressure increased. He

asks whether these effects do not result from the obstruction to the capillary circulation caused by the presence of an excess of carbonic acid in the blood. (3) Pure sulphuric ether retards the flow of the blood, and withal the transpirability of ether is at nearly three times the velocity of water. These facts have an important bearing on poisoning by ether and the use of ammonia as a restorative. (4) Chloroform, which retards the flow of water and of serum, absolutely increases the flow of defibrinated blood. These facts are interesting enough, but they require to be still further developed.

Idiopathic Glossitis (*The Medical Press and Circular*, October 18, 1876).—Mr. Richard Croly reports that he was recently sent for to visit a man of middle age, whom he found suffering intensely from the following very distressing symptoms, the mere enumeration of which will at once portray the gravity of the case: the tongue was protruded from the mouth, enormously swollen, and very tender to the touch, its edges deeply indented by the teeth, the saliva mixed with viscid, ropy mucus, dribbling from the mouth, inability to swallow, except with considerable pain, speech "thick" and indistinct, distressed breathing, face turgid, countenance very anxious and expressive of much suffering, pulse full and rapid. Cause of illness not known, but supposed to have originated from exposure to wet and cold. He recognized this remarkable and alarming train of symptoms as characteristic of glossitis or inflammation of the tongue, a disease of not frequent occurrence, and saw that no time was to be lost, and that hesitation or delay might prove fatal. He at once made a free and long incision on each side of the tongue, from the base towards the apex, midway between the raphê and edges. In doing so he was obliged to pass the scalpel flatways along the surface of the tongue, and then turn the sharp edge downwards. Copious bleeding followed, very alarming to the bystanders, but soon ceased. The relief which the sufferer experienced was almost immediate, the engorgement rapidly subsided, so much so that but little further treatment was necessary, and the patient made a rapid recovery. The symptoms were so very urgent in this case that, if not thus promptly and boldly treated, the patient in a short time would certainly have been choked.

Injury to Pharynx — Emphysema — Death (*Med. Press and Circular*, October 18, 1876).—A woman, æt. 52, edentulous, was eating a piece of loin of pork, and owing to the absence of teeth she swallowed the meat without masticating it. When she had nearly finished her dinner, a piece of the meat lodged in her throat. She complained at once of pain and of some difficulty of breathing, and went to three medical men and chemists for assistance, but as no one attempted to rid her of the obstruction, and as the symptoms did not decrease, she went to a hospital. On her road to the hospital she vomited. The house-surgeon passed a Ramouner probang with ease into the stomach, and informed her that whatever might have obstructed the passage was no longer there.

Finding the œsophagus clear, the house-surgeon naturally discharged the patient, believing that all her trouble would gradually disappear. However, a few hours later she was again brought to the hospital. She had now extensive emphysema of the face, head, neck, shoulders, and chest; her respirations were forty per minute, short and catching; the pulse scarcely to be felt; the vessels of the neck dilated; the thorax was fully resonant, yet breath-sounds scarcely audible. A probang was passed freely into the stomach, and the patient drank a quarter of a pint of milk without difficulty. The laryngoscope was applied, and the pharynx was found to be emphysematous, but the larynx was sound. No injury could be seen by which the air had escaped, though it was evident that some lesion must exist.

The patient died the following morning.

At the *post-mortem* examination emphysema was found, as had been detected during life, in the cellular tissue of the head and neck, shoulders, pharynx, and œsophagus. Air also infiltrated the posterior mediastinum, and extended beneath the pleura. At the level of the cricoid cartilage a longitudinal laceration, three-quarters of an inch in length, was to be seen; and corresponding to this, on the posterior part of the pharynx, was a fine longitudinal scratch about a quarter of an inch in length, showing that a foreign body, sharp at both ends, had rested obliquely at the junction of the pharynx and œsophagus, with its lower, and, doubtless, larger extremity fixed on the cricoid cartilage. From the result of the *post-mortem* examination, it was presumed that as the patient was unable to masticate, she had inadvertently swallowed a jagged piece of bone whilst bolting her food; that the bone had become fixed in the pharynx, producing the laceration there found; that coughing and deglutition, or else the vomiting, had soon dislodged the bone after inflicting the injury; that air had at once passed into the cellular tissue beneath the pleura, and produced the dyspnœa of which she continued to complain, notwithstanding that the œsophagus was found to be clear of any obstruction. No bone was found in the stomach after death, nor any foreign body which would have produced the injury, and it had, therefore, been probably lost in the vomit.

The Glasgow dogs are suffering from a Herod, worse than any prince of vivisectors. The police recently made a raid upon them and killed 1155.

MISCELLANY.

COLOR-BLINDNESS IN SAILORS.—According to the investigations of Drs. Feris and Favre (*Du Daltonisme dans ses Rapports avec la Navigation*), of 2408 collisions at sea from 1859 to 1866, 539 may be imputed to a wrong interpretation of color-signals at night, from the color-blindness of the captain or officer in charge. Among the shipwrecks so caused are specially mentioned those of the *Japhet*, the *Vesta*, and the English steamer *Maloma*. Of 502 sailors examined by M. Feris, 47, or 9.4 per cent., were color-blind. Of this number, 24 could not distinguish between red and green, the colors chiefly employed for signals. Stokers and engineers are among those who suffer most from color-blindness. At Lyons, M. Favre found 24 dyschromatic stokers out of 65 whom he examined in the works at Perrache.

ALLEGED FAILURE OF SALICYLIC ACID.—At a meeting of the Société de Thérapeutique, October 11, 1876, Dr. Martineau reported that neither in typhoid fever nor in articular rheumatism did he obtain any influence, either on the temperature or the pulse, by the use of salicylic acid. This was confirmed by M. Dujardin-Beaumetz, who thought, however, that it calmed the articular pains.

THE departmental reports made to the Government of India show that in Sikkim 385,000 cinchona trees, chiefly the red bark variety, were planted out in the financial year 1874–75, bringing up the total number in the permanent plantation to 2,765,000. The area of land under cinchona in the Nilgherry hills is reported at about 3000 acres, part government and part private plantations. During the year, 28,659 pounds of mossed bark were shipped to England, and the prices averaged about four shillings per pound. The cultivation of cinchona in the Sittand division of British Burmah was carried on with success. There were, at the close of the year, 19,234 plants growing well, and the nurseries contained 46,823 plants.

THE Dublin *Medical Press and Circular* has recently been convicted of libel and mulcted in fifty pounds damages. One Mr. Betts had opened a free dispensary in Dublin, at his office, charging fourpence a head for medicines. The *Press and Circular* stated that he could not furnish proper medicines at such price. At the trial, Mr. Betts stated that, as the result of this statement, the attendance on his dispensary had largely fallen off. The *exposé* must have destroyed any professional reputation Mr. Betts may have had, and we sincerely hope, for the good of the Dublin public, both professional and lay, the attendance on his dispensary may altogether fall off.

THAT most extraordinary of medical men of the century, Dr. Brown-Séquard, two weeks ago was practising in London. As he is announced for a course of lectures, by starting at once he could probably be found in time for a consultation in the great Babylon.

DR. TIEGEL, assistant to Professor Goltz, of Strasburg, has accepted an invitation to the Professorship of Physiology in Japan.

NOTES AND QUERIES.

NEW YORK, Dec. 5, 1876.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR.—In the *Times* of the 25th ult., Dr. Benjamin Lee has kindly referred to my recent paper on the Cause of Rotation in Lateral Curvature of the Spine. I regret that I was not aware that he had previously written to so much purpose on this subject, otherwise I would have been glad to enrich my essay with references to his valuable work. My excuse to him must be that of the lexicographer Johnson to a lady who asked him how he could have defined *pastern*, the *knee* of a horse. "Ignorance, madam, pure ignorance," he answered.

But Dr. Lee in his claim of priority, and your correspondent Pertinax, in making a claim for Dr. Lewis A. Sayre (June 20, 1876), have both unintentionally obscured the principal, and perhaps only, original idea in my essay, which is briefly expressed in these words (Trans. N. Y. Academy of Medicine, pp. 319 and 328):

"The rotation of the vertebra in lateral curvature of the spine consists in an unequal lateral displacement of the body and the spinous process, the former being free from lateral attachments and therefore departing from the median plane, while the latter is held in the median plane by its muscular and fibrous attachments. The distinguishing feature of the explanation of rotation here proposed is the recognition of the fact, heretofore overlooked, so far as I am aware, that the posterior portion of the vertebral column, being a part of the dorsal parietes of the chest and abdomen, is confined in the median plane of the trunk, while the anterior portion of the column, projecting into the thoracic and abdominal cavities, and devoid of lateral attachments, is at liberty to, and physiologically does, move to the right and left of the median plane."

A. B. JUDSON, M.D.

ONE of the assistant physicians of the State Hospital for the Insane, at Danville, Pa., resigns on account of indisposition. The undersigned will receive applications for the vacancy. Applicants must be single, graduates in medicine of a respectable school, of irreproachable moral character, and will give the date and place of graduation and the extent of their preliminary training. Address

S. S. SCHULTZ,
Danville, Pa.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM DECEMBER 3, 1876, *TO DECEMBER* 16, 1876, *INCLUSIVE.*

COOPER, GEO. H., MAJOR AND SURGEON.—Appointed Assistant Medical Purveyor with the rank of Lieutenant-Colonel, to date from December 2, 1876; vice Laub, deceased.

MAGRUDER, D. L., SURGEON.—When relieved by Surgeon McKee, to proceed to St. Louis, Mo., and report, upon arrival, by letter to the Surgeon-General. S. O. 250, A. G. O., December 4, 1876.

MCKEE, J. C., SURGEON.—To report in person to the Commanding Officer Department of Arizona, for duty as Medcal Director of that Department. S. O. 250, c. s., A.G.O.

BILLINGS, J. S., ASSISTANT-SURGEON.—Promoted Surgeon, with the rank of Major, to date from December 2, 1876; vice Cooper, appointed Assistant Medical Purveyor.

LIPPINCOTT, H., ASSISTANT-SURGEON.—Ordered before the Army Medical Board in session in New York City, for examination for promotion, and upon conclusion thereof to return to his proper station, West Point. S. O. 250, c. s., A. G. O.

COMEGYS, E. T., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Clark, Texas. S. O. 216, Department of Texas, November 28, 1876.

PHILADELPHIA, JANUARY 6, 1877.

ORIGINAL COMMUNICATIONS.

ON THE DANGER ATTENDING THE USE OF OPIUM IN BRIGHT'S DISEASE, ILLUSTRATED BY A CASE OF OPIUM-POISONING.

BY W. W. KEEN, M.D.,

Philadelphia.

THE following is, I believe, the first case in medical jurisprudence involving the question of the danger of opium in Bright's disease, and the consequent differential diagnosis of opium-poisoning and uræmia, and is so emphatic a confirmation of the reality of this danger that it seems to me particularly worthy of publication.

Mr. J. M. C., a stout and apparently robust, healthy man, about forty-five or fifty years of age, spent the evening of June 26, 1876, at a ball with Mrs. Bella McClain, a fortune-teller by profession. After indulging in some drinking (but not probably to any extreme degree) and also in some venereal excesses, he went to her room in the "Fish House," at Fortieth and Elm Avenue, at about 1 A.M., June 27, not in an intoxicated condition. The next time he was seen was about 4.30 A.M., when he came to the bar, apparently stupid, but able to walk. When asked for his watch he felt for it, but mumbled out that it was gone. Soon after, while trying to put on his shoes, he fell over unconscious. Dr. Wm. H. Hawkes was called to see him about eight o'clock, and found him unconscious, livid, breathing nine times in the minute, pupils greatly contracted and immobile, pulse about 100. He diagnosed narcotic poisoning, injected one-sixtieth grain of atropia, and applied mustard, but found it impossible by any of the ordinary means to arouse him in the least. He sent for me, and I reached there at a little before 10 A.M. I found him lying flat on a lounge, his face very livid, especially at the lips and ears; respirations 12, and slightly stertorous; pulse 104; pupils contracted, and, separately tested, each insensible to light. He was utterly unconscious, and could not be aroused by any means, nor could he walk or sit. His breath smelt somewhat of liquor, but not of laudanum. The history of the woman, who had drugged other men, both in Boston and here, and who was a chronic morphia-taker, ostensibly for stricture of the rectum, made it probable that she had administered a comparatively small dose of morphia (and facts subsequently discovered made it probable that it was from gr. ss to ij) for the purpose of drugging and then robbing him. This, too, was confirmed by the fact that so small a dose as one-sixtieth grain of atropia had dilated his pupils to a slight but an appreciable extent, and also had increased his respirations from nine to twelve. In view of the time that had elapsed since taking the morphia (probably six hours or more, when it would all be absorbed), that he was unable to swallow, and was so visibly improving, I did not try to give him any emetic, nor did I think it needful to obtain a stomach-pump, which would at that distance have required probably two or three hours. I suggested to Dr. H. the administration of one-thirtieth grain of atropia, which he at once gave hypodermically. By 11 A.M. his color had improved, his pulse had risen under the atropia to 112, his respirations to 17 or 18, and his pupils had dilated nearly to the normal size. Having an operation at 12 at St. Mary's Hospital, and seeing his steady improvement, I left him in care of Dr. H. In the afternoon at two o'clock Dr. H. administered another one-sixtieth grain of atropia, as his pupils seemed to contract slightly, though his respirations remained about the same. At 7 P.M., in response to a telegram from Dr. H., I saw him again. His color was somewhat improved, pupils nearly normal, respirations 21 and 22, pulse 130, and weaker. He could be slightly aroused, and was able to swallow. Accordingly I gave him gr. xx zinc. sulph., to empty the stomach of any possible solid contents, and so promote absorption of strong coffee. After he had vomited, only, however, the water in which the zinc was dissolved, we gave him three cups of strong infusion of coffee. We set him up on the lounge leaning against the wall, when he did not fall. Shouting in his ear produced a slight unconscious response. We attempted to walk him about, but, finding it utterly impossible, gave it up. Slapping him on the face with a towel wet with ice-water produced some reflex response, as also did any touch on the eyeball. About this time Dr. H. drew off a pint of urine (the patient had not passed any during the day), which was put in a freshly-washed porter-bottle and given to a policeman, with instructions if the man died to give it to the coroner's physician. The ambulance of the Philadelphia Hospital had been sent for early in the evening, and at about 11 P.M. he was taken to the hospital. During his examination there, slight pitting was discovered at favorable points, *e.g.*, under the malleolus. His pulse gradually failed, his pupils dilated widely, and at 2 A.M. he died.

On the trial of Mrs. McClain for murder, it was shown by Dr. Henry Chapman, the coroner's physician, that his brain was congested and his kidneys granular. A microscopic examination showed the disease to have been a chronic interstitial nephritis in an advanced degree. Prof. Koenig examined the urine, which was albuminous, but not to any great extent. No morphia was found in the stomach

or its contents, but a slight yet undoubted trace was found in the urine. Mrs. McClain was convicted of murder in the second degree, with a recommendation to mercy, and was sentenced to six years and three months' imprisonment.

The possibly dangerous effect of even small doses of morphia in chronic Bright's disease, although alluded to by several writers of authority, is not so widely and thoroughly known as it should be by the profession. I have no doubt, as at least in one case I know of, that patients are unwittingly endangered, and sometimes even their lives sacrificed, by either a forgetfulness of this fact or by ignorance of even the existence of Bright's disease. "It is not seldom," says Dickinson (On Albuminuria, p. 162), "that the comatose state to which this disease tends has come on before its time in consequence of the administration of opium. Intolerance of this drug is one of the peculiarities of the disease: doses so small as to be looked upon as safe under any circumstances will sometimes have a poisonous effect. I may instance a case where a patient became comatose after taking five grains of Dover's powder, a medicine which has been stated, though with no great probability, not to possess the poisonous properties of the opium it contains." Roberts (Urinary and Renal Diseases, Amer. ed., p. 350) also gives an instructive case in which the administration of a "few drops of laudanum" was followed by coma and death, and two others in which the uræmic coma was mistaken for narcotic poisoning.

As to the diagnosis in such cases, it is often extremely difficult to decide how far the symptoms are due to the opium, and how far to the induced uræmia. In this case the narcotic symptoms were so decidedly in excess as entirely to mask those due to uræmia. There was stertor instead of hissing, the respirations were decidedly reduced in frequency instead of being quickened, the skin was not anæmic, but livid, the pupil was contracted instead of being dilated or normal, there was no noticeable œdema and no convulsions. The post-mortem showed a congested brain instead of an anæmic one. The pulse, when first noted, was neither quiet and nearly normal, as in uræmia, nor slow and full, as in opium-poisoning. Later in the case it was quickened by the atropia. Moreover, there was no previous history of headache, etc., such as more commonly precedes uræmia. These symptoms, especially the condition of the pupil, will generally enable us to differentiate narcotic poisoning from uræmic intoxication where they do not co-exist.

As to the treatment, the excellent effect of the atropia in increasing the frequency of the respirations, in improving the color, in nearly overcoming the stupor and rescuing him from the danger, was very noticeable, and I doubt not would have been successful had it not been for the condition of the kidneys. Although not successful, it tends to confirm our belief in the useful therapeutic antagonism of the two drugs, as was shown by the numerous experiments made by Drs. Mitchell, Morehouse, and myself (*Amer. Jour. Med. Sci.*, vol. l. p. 67); and also by Dr. Oliver (*Ibid.*, July, 1876, p. 38), who has found in 370 analyzed cases of poisoning by opium or belladonna that the treatment by the antagonistic drug is in all classes of cases greatly superior in its results to all other means of treatment. In this case atropia was a peculiarly fortunate choice, for by its marked diuretic properties it was the best possible remedy to arouse the function of the kidney, and thus at once to eliminate the opium and avoid or mitigate the danger of uræmia.

The attempt was made at the trial, relying upon Taylor's disbelief in this mode of treatment, to show that it was inappropriate, and that the atropia, the more powerful and poisonous drug, was, in part at least, responsible for the patient's death. It need only be said in reply that the dose usually recommended is "one-fortieth or one-sixtieth grain every fifteen, twenty, or thirty minutes, as the urgency of the symptoms may demand" (H. C. Wood's Therapeutics, p. 251), and that in the experiments above alluded to I have repeatedly given to a healthy man one-fifteenth of a grain of atropia at a single dose, hypodermically, without poisonous results, an amount which in this case was given in divided doses at 8 and 10 A.M. and 2 P.M.

1729 Chestnut Street.

Since the organization of night medical succor under the direction of the police in Paris, which was begun on January 1, 1876, 12,768 persons have claimed assistance. A very large proportion have reimbursed the expenses.

NOTES OF CASES.

BY WM. MASON TURNER, M.D.,

Philadelphia.

I HAVE thought that a brief record of the following cases might not prove uninteresting to the readers of the *Times:*

I.—A CONCEPTION WITHOUT MENSTRUATION.

Within the last two months, Mrs. —, aged 28, native of Germany, and always enjoying robust health and a full flow of animal spirits, was treated for some trifling biliary derangement. In the course of a conversation one day, I was informed that the lady *had never menstruated*, nor were there ever present any signs from as far back as she could remember which pointed to the commencement of the menstrual function. There were no premonitory pains, nausea, lassitude, etc., and no sign of puberty save a very early and extraordinary hirsute growth upon the mons veneris. And that growth, I was assured, was abundant enough for a full-grown woman, even at the tender age of eleven years. But this woman, married some eleven years since, has conceived, aborted twice, and borne four children at full term.

There is an old aphorism,—old enough indeed to be quite time-honored,—that where there is a "show," at however early an age, fecundation is possible. But this woman, in one peculiarity a veritable *lusus naturæ*, goes beyond or behind (?) the old aphorism: she conceives, and very readily too, without having menstruated at all!

More than once I have met with women who menstruated *only during pregnancy*, and two of the cases were in the wards of La Charité, in 1858, in the service of M. Velpeau; but I have never met with a case similar to the one which I have cited.

I distrusted the statement when I first received it; but upon close and careful inquiry among her female friends I learned that the patient had told the truth, and that this "peculiarity" of hers had often been a subject of comment among her acquaintances in her own sex.

II.—OPIUM HABIT.

A man who had been a great sufferer from atrocious neuralgia of the facial nerve recently came under my observation. The "remarkable" feature in his case was the enormous quantity of morphia which he daily used by subcutaneous injection. He had gradually increased the size as well as the frequency of the dose, until at the time he saw me he was using, according to his statement, *one hundred and twenty grains per diem*. His body at this time was a mass of festering sores, almost from head to heel, from the constant use of the syringe. His favorite places for injection were: (1) some inches below Scarpa's triangle, upon the inner face of the left thigh, and (2) in the left arm, about the insertion of the deltoid muscle.

DEATH FROM A CONCEALED HEMORRHAGE OF THE FEMORAL ARTERY.

BY W. G. COTTON, M.D.

I. R., adult, farmer, on November 11 received a penetrating wound, from a sharp-pointed penknife, in the leg near the line of the femoral artery, about eight inches below Poupart's ligament. There was but slight hemorrhage of arterial blood, and the wound at first did well. In three days afterwards he gave the wound a wrench in lifting. This brought on sickness of the stomach, pallor, furred tongue, chilliness, and general prostration, with swelling around the wound, and all the apparent symptoms of the formation of an abscess. This condition of ill health continued until three o'clock P.M. of December 11, when he arose from the chamber to lie down in bed. After this effort he felt something break, and said the artery had broken and was filling his leg with blood. He immediately commenced to sink. I saw him at five o'clock P.M. and found him pulseless at the wrist and dying. My father and Dr. Rogers came soon afterwards, and remained until his death at eleven o'clock P.M. We gave him whisky and quinia, but thought it too late to ligate the femoral artery. At the post-mortem examination we found the artery ruptured, and about five pints of clotted blood engorged around the muscles of the leg. The distention extended from two inches above Poupart's ligament to the knee. We did not find any pus.

In this case the knife-blade probably had in the first place severed the outer and middle coats of the femoral artery, and the subsequent inflammation had weakened the remaining coat. The first hemorrhage was, in the opinion of all who saw the case, from a small branch of the large artery. I believe this to be a peculiar case, and one that would admit of much speculation about what might, could, would, or should have been done.

In a work on the "Voices of Animals," by Landois, additional evidence is collected of the universality of vocal sounds among the lower animals, including the mollusca. The author considers it to be indisputable that ants possess a vocal speech, by which they are enabled to exercise those higher mental faculties to which they owe their high social organization.—*Popular Science Monthly.*

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF PROF. PEPPER.

Reported by DR. H. R. WHARTON.

RELAPSES IN TYPHOID FEVER.

THIS patient was admitted to the University Hospital on October 29, suffering from typhoid fever. He was treated in the manner that has proved very successful this year,—namely, with nitrate of silver, quinine, and liquid diet,—and, like the majority of cases so treated, showed an abortive tendency from the twelfth to the fifteenth day.

He did well, and, on the seventeenth day of the attack, when he left his bed without permission, this was followed by no bad consequences. On the twenty-second day, as he appeared so well and complained of liquid diet not satisfying his hunger, he was allowed a semi-solid diet.

His temperature at this time was about 98.3° in morning and 99° in evening. On the twenty-fifth day his temperature suddenly ran up to 102°; on the twenty-sixth day to 103.2°; tongue dry and coated; patient restless and distressed.

This case is shown to illustrate the fact that in a typhoid-fever patient who is rapidly approaching convalescence you may have a relapse; the temperature rising gradually, you may have a gradual development of the original symptoms,—coated tongue, tremulous muscles, tympanitic belly, diarrhœa, and in some cases rose-colored spots.

Is this a second attack or development of typhoid fever proper? is it attended with lesions in the intestines?

It is possible that all the glands have not gone through their proper change, and in this condition some indiscretion in diet or imprudence in motion may cause them to take on fresh action; this is followed by the development of the same train of febrile symptoms. In these cases the peculiar poison in the blood connected with lesions of the glands has not been entirely eliminated.

The duration of the relapse is generally short, lasting from ten to fifteen days, although I have known such cases to go on to perforation. There is another form of relapse, sympathetic in its nature.

In the course of typhoid fever you may have developed pneumonia, pericarditis, etc., but generally the relapse can be traced to intestinal irritation, either catarrhal inflammation or constipation.

Always examine for these, and if you find the food disagree with the patient, or he is taking improper food, or the bowels are constipated, you have a cause for the redevelopment of the febrile symptoms.

On the other hand, if you have none of these, examine every organ for local lesion. The treatment of the relapse is based on the cause: if a redevelopment of the original attack, the treatment should be identical with that of the first attack. The patient may require a more stimulating diet, and you may have to resort to stimulants earlier than in the original attack. If due to irritation of the alimentary canal, restrict the diet, and open the bowels by a gentle laxative if necessary.

If you have catarrhal irritation, with a furred tongue, a small dose of a mercurial followed by a saline will often be followed by a removal of the fever.

This patient, in whom the relapse seemed due to intestinal irritation, was treated in the manner described, and is now doing well; his temperature is almost normal, and he now seems fully convalescent.

LEAD-POISONING.

This patient, Henry L., æt. 32 years, last August was employed in chemical works, where his principal duty was packing litharge. Since that time he has suffered from obstinate constipation, vomits occasionally, has constant abdominal uneasiness, and at times feels as if the bowels were twisted. He also has pain in the lumbar region, which is most marked when he stoops forward. On examining the mouth, a blue line is seen at the junction of the gums with the teeth; this is best seen in the lower jaw. He is very anæmic, conjunctiva sallow, but there is no sign of jaundice. This is evidently a case of lead-poisoning, caused by the introduction of lead into the system in excessive quantities. This disease is most common among workers in lead.

The means of its admission to the system in some cases is very difficult to determine. It can sometimes be traced to water drawn through leaden pipes, to vessels glazed with lead, and to articles which are wrapped in lead-foil.

Individual susceptibility to the action of lead varies greatly. The symptoms of its introduction into the system are as follows: obstinate constipation; vomiting and pain, either continuous or occurring in paroxysms, usually seated about the umbilicus, described as of a twisting character: these constitute lead-colic. This pain is often relieved by pressure. The patient before us obtains relief by wearing a tight band around the belly. In some cases the pain is of a lancinating or shooting character; the duration of the paroxysms varies from a few minutes to hours. Among the constitutional symptoms of lead-poisoning is the lead cachexia or anæmia, due to the distinctive action of lead on the blood-corpuscles; the sallowness of the conjunctiva is marked in the case before us. The blue line on the gums will be found partly in the tissue of the mucous membrane and partly upon its surface; most evident at the junction of the gums with the teeth. It is probably produced by the action of sulphuretted hydrogen, resulting from the decomposition of particles of food on the lead forming a sulphuret of lead. This line, taken with the other symptoms, is a valuable diagnostic sign. Lead-palsy, produced by a deposit of lead in the tissues, is another symptom of its introduction into the constitution. The extensor muscles of the fore-arm are generally the first to show its effect. In some cases you have no paralysis, but mere muscular pain; this is shown in the present case.

In other cases you may have various cerebral and nervous disturbances, due to its presence in the nerve-tissues. Among these are neuralgic pains, either local or general, and many spasmodic affections. Lead when introduced into the system acts first on the intestinal canal, interfering with the secretion, but acts more permanently by absorption into the blood, and by being deposited in the tissues, where it has an affinity for the terminal fibres of nerves, in some cases producing painful spasms, in others paralysis. This may be due to a difference of degree of the same action, or to a different action on the motor or sensory fibre. We have already alluded to the anæmic condition produced by lead; but its action on organs which excrete it from the system is worthy of note. This is seen in the albuminuria consequent on lead-poisoning.

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The treatment of this affection has several points in view. First, the removal of lead from the intestinal canal; second, its elimination from the tissues; and third, the treatment of special manifestations.

For the removal of lead from the intestinal canal we shall give the sulphate of magnesium with dilute sulphuric acid. This converts it into an insoluble salt, and acts also as a purgative. Internally, to eliminate the lead from the tissues, we shall give the iodide of potassium in full doses. This forms the iodide of lead, which is excreted by the skin and kidneys. With regard to the treatment of special symptoms, if you have severe colicky pain it must be relieved by anodynes or anæsthetics. The following is a preparation which acts well:

℞ Ext. colocynth. comp., gr. ii;
Ext. opii, gr. ss;
Ext. belladonnæ, gr. ⅙.

This pill repeated until the pain is relieved and the bowels opened.

The palsy may be relieved by the internal administration of strychnia, and locally by the application of the faradic current to the affected muscles.

The anæmia is best treated by iodide of potassium and the salts of iron.

TRANSLATIONS.

Icterus without Appreciable Organic Affection of the Liver, followed by Rapid Death with Symptoms of Internal Strangulation and Compression of the Vena Porta.—Dr. Blutel contributes the following notes of a case coming under his observation to *L'Année Médicale*, September, 1876. The patient was a man 62 years of age, somewhat broken in health, sober, and leading a regular life. His skin was pale, with a yellowish tint; he was habitually constipated. When first seen he was pale, the tongue grayish but not dry. He complained of general discomfort and tension in the abdomen, but no actual pain. The pulse was 90. The patient had been somewhat suddenly attacked with pain in the abdomen four days previously; no other history was obtained. His bowels not having been moved for eight days, an aperient was ordered, together with an enema. These failed to operate, and on the next day the patient was worse; he

vomited, and the pain was increased. The enema which was rejected gave an extremely offensive odor. The urine was clear and brown, the tongue was dry, and the patient complained of extreme thirst. The skin had become yellow, and, on examination, the liver appeared slightly diminished in size; no tumor or protuberances could be observed on its surface. The patient was ordered Rivière's anti-emetic potion, ice to swallow, a castor-oil enema, and a hot bath.

From day to day the patient became worse; the skin dry and more deeply icteric; the pulse rose to 110, then to 115 and 130; the urine was dark; the vomiting, at first controlled by ice, recommenced. The enemata were constantly returned, with a horrible odor. The only relief experienced was during the hot bath. On the fourth day petechiæ appeared on the abdomen and legs, the heart beat irregularly, the feet were swollen. The patient suffered from great oppression, he seemed suffocating; the skin itched intensely, nothing was borne on the stomach or in the rectum, and he finally sank and died, in full possession of consciousness to the last. Unfortunately, no post-mortem examination was allowed. x.

Coloring Wines by Fuchsine.—MM. Bouchardat and Ch. Girard call attention in the *Bull. Gén. de Thérap.*, October 15, to the custom lately introduced into France of coloring wines by means of fuchsine with or without arsenic. Examination shows that the superior qualities of Burgundy and Bordeaux are not tampered with, the adulteration being confined to the inferior and cheaper qualities. The immediate effect of these wines of spurious manufacture is not poisonous, but their continuous use, MM. B. and G. think, must be in the highest degree prejudicial to the health of the individual using them. Several methods of detecting the drug are detailed in the paper referred to, among which one of the simplest is as follows. Five to six grammes (about f℥iss) of the suspected wine are poured into a little flask of about 30 grammes (f℥i) capacity. To this 8 to 10 drops of ether are added, and the mixture well shaken, and then allowed to rest for some three or four minutes. A portion is then decanted into another flask, and vinegar or acetic acid is added until the mixture smells decidedly of it. If the wine contains fuchsine or aniline violet the ether will become rose or violet in color, and after a few moments the acetic acid or the vinegar collects at the bottom of the glass in a vividly-colored globule.

Certain other coloring-matters natural to the wine will also yield this reaction, but only after a very considerable period and after passing through various shades of yellow, rose-colored, red, and finally violet. x.

Diagnosis of Progressive Pernicious Anæmia.—According to Eichhorst, pernicious anæmia may be diagnosticated even in its earlier stages with absolute certainty. Not clinical appearances but anatomical changes are here to be taken into consideration, and the latter are to be looked for in the blood. Briefly, the affection may be regarded as a disease of the red blood-corpuscles, as easily discerned as in leukæmia. Eichhorst himself has never missed the appearances to be mentioned in any of his cases, and has frequently demonstrated them to his colleagues.

While a portion of the red corpuscles retain their normal size, and are only marked by extreme paleness with a tendency to crenation and the formation of rouleaux, others among them attract attention by their small size. The latter are often not more than one-fourth the diameter of the well-formed corpuscles. In addition they are more deeply colored; and, if allowed to roll about under the thin glass cover, their appearance in profile shows them to have lost to a greater or less extent their biconcave outline. Sometimes they are so small as to look like little red-tinged fat-globules.

Several hundred examinations were made, both on the blood of healthy persons and on that of patients suffering from the most various diseases, among which were anæmic and cachectic conditions, but no changes at all resembling the foregoing were met with. Observation of the disease under consideration from its earliest stages will show that as the affection proceeds in its course, going on from bad to worse, the proportion of these foreign elements increases. E. has never observed a case in which the number of relatively intact blood-corpuscles was so large towards the end of life as those which were represented by the small reddish globules.

The white corpuscles are always diminished in number, and those masses of protoplasm so frequent in healthy blood were only sparingly present. — *Wien. Med. Presse*,

1876, No. 40; from *Centralb. f. Med.*, No. 26, 1876.

ANEURISM OF THE RIGHT VERTEBRAL ARTERY (E. Ledaire: *La Presse Méd. Belge*, 1876, No. 20).—The aneurism was situated on the right side of the cord, close to the fork-like junction of the two vertebral arteries to form the basilar. The upper part of the enlargement was regular, the lower sac-like in form, and the size of the whole tumor about that of a hazel-nut. On the corresponding portion of the left vertebræ there were also two dilatations of small size. The cause of these changes was found to be an atheromatous process which had been going on in the walls of the vessels. The patient was sixty-three years of age, and, strange to say, had given no evidences of disease. Death occurred suddenly, from hemorrhage into the meninges of the brain. W. A.

ALBUMINURIA AS A SYMPTOM OF EPILEPTIC ATTACKS.—Otto (*Berliner Klin. Wochens.*, 1876, p. 609) made a series of examinations of the urine in a number of epileptics. The examinations were conducted with great care, running over a number of successive attacks in each case. His conclusions show that transitory albuminuria is a frequent though not invariable result of the epileptic onset. It appears, not in the urine drawn off just after the attack, but that which is passed a little later, and its production seems to be the result of blood-pressure upon the capillaries of the kidneys. X.

PERCUSSION OF BONES. — Prof. Lücke (*Centralbl. f. Chirurg.*, 1876, No. 43) believes that this means of diagnosis can be made practically available, not only for the purpose of ascertaining painful points, but also of detecting deposits in the bone-substance or marrow. In the case of the long bones, the epiphysis gives invariably a higher note than the diaphyses, but callus or foreign growths in the bone-substance cause lower resonance. The examination should always be comparative, both the healthy and diseased sides of the body being sounded. X.

SPONTANEOUS EVACUATION OF A VESICAL CALCULUS BY AN UNUSUAL ROUTE.—The *Centralblatt für Chirurgie*, 1876, No. 43, gives the following case from a Polish journal. A child five and a half years old, in good health otherwise, had suffered for six months with pain in the hypogastrium and difficulty in urinating. For five weeks previous to examination a tumor had been gradually forming in the left inguinal region, extending into the scrotum, about an inch broad by half an inch wide, showing a small opening in the centre. The urine was voided by this outlet instead of following the usual course. The sound could be passed downwards into the scrotum, and upwards into the bladder. Dilatation was practised in both directions, by means of which a conical, dark-brown, somewhat soft urinary concretion was extracted from the scrotum. A No. 12 elastic catheter, and even the little finger, could be pushed into the bladder. The fistula healed up in six weeks. Subsequently there was incontinence of urine, but entire recovery eventually took place. X.

EXTRAORDINARY CASE OF PERSISTENCE OF IMAGES IN THE HUMAN EYE. — Dr. Paolo Gorini (*La France Méd.*, 1876, p. 735) tells the following incident which occurred to himself. One night, having fallen asleep while reading a book, he presently wakened, when on looking at the wall opposite his bed, which was illuminated by a lamp near him, he observed it covered with printed characters of large size forming words regularly disposed and separated by lines like those in the book which he had been reading. Not only could he see the text, but he could distinguish the annotations in smaller characters. The whole appearance was vague and indistinct, but there could be no doubt that the image seen on the wall was that of the pages which he had been reading when he fell asleep.

This strange apparition lasted some twenty seconds, and in this space of time was reproduced each time at which after closing he again opened his eyes. The incident is interesting as a case of persistent image in the retina. The assertion made a few years ago will be remembered, namely, that the object last appearing before the eyes of a person suddenly dying would leave its image on the retina, and the delusive hope was entertained that photographs of the retina might prove of use in medico-legal cases. X.

TYMPANIC CHARACTER OF THE CARDIAC BRUIT IN CASES OF CYLINDRICAL DILATATION OF THE ASCENDING AORTA. — Dr. Noël Gueneau de Mussy contributes an article on this subject to *La France Médicale*, Nov. 8, 1876. He has already alluded in former writings to a sign of general dila-

tation of the ascending thoracic aorta, namely, the perception of a prolonged, clangorous, metallic—in a word, tympanitic—second cardiac sound, along the course of the vessel. Further experience assures him of the value of this sign, which he goes on to explain. Alluding to the normal second sound of the heart, *dry*, *clear*, *shorter*, and more *acute* than the first, he observed that in anæmia, and more so in dilatation of the aorta, this sound becomes amplified, redundant, and attains a characteristic metallic resonance, which is best designated by the word tympanitic. Its maximum intensity corresponds to the course of the ascending aorta, as near as can be ascertained. Dilatation of the aorta is not a very rare affection, particularly in old age. It is met with in various degrees, from simple uniform dilatation of the cylinder, to bellied-out enlargements which transform the vessel into a sort of elongated pouch without actually forming a sac upon the artery. At the same time that the calibre of the artery is increased, its texture is modified; its lining coat presents an opaline, whitish-yellow tint; it is sometimes mammillated, often strewn with yellow or milky lines, points or patches; occasionally the coat can be raised or stripped off in flakes; in some cases it is incrusted with concretions looking like semi-transparent barley-sugar. These lesions indicate the morbid process, and account, in Dr. M.'s opinion, for the dilatation, etc. The modification of the second sound, alluded to above, may be the only symptomatic manifestation of the aortic dilatation when this is slight. It is sufficient, however, to establish the diagnosis, when the tympanitic sound is very marked. In other cases, in addition to this symptom, which may be regarded as characteristic, others may be perceived, such, for instance, as dulness behind and along the border of the sternum, parallel in a measure with the dilatation of the aorta. After alluding to the investigations of Chevers and Gairdner as to the size of the aorta, and the opinions of G. as to the cause of the sounds heard in cylindrical enlargement, Dr. M. gives it as his opinion that these sounds are produced by the passage of the blood-column through the relatively narrowed orifice of a vessel partly enlarged, as suggested by Gairdner. When the aorta extends beyond the sternum, the cylindrical dilatation reaching to the transverse portion, a vague, profound impulse may be felt, isochronous with the ventricular systole. But if in place of this sensation a movement of enlargement is clearly perceived, corresponding in a limited space to a dull sound, or to a diminution of elasticity and of transonance; if in place of a prolongation of the sounds at its base, circumscribed sounds are heard at this point, or sounds subjacent to those found at the origin of the vessel; if at a certain stage of the disease functional troubles, sometimes sudden, indicating compression of the thoracic organs, supervene; there is more than a simple cylindrical dilatation, there is a sacculated tumor. This tumor may itself be superposed upon a cylindrical dilatation. As to the question whether, when the cylindrical dilatation of the aorta is considerable, certain functional troubles may not present themselves in addition to the symptoms above described, Dr. M. is inclined to the affirmative, and gives the following case. In this the phenomena believed to be characteristic of cylindrical dilatation of the aorta were presented, namely, tympanitic thrill, great exaggeration of the second sound, perceived all over the chest, dulness over a narrow elongated zone parallel to the upper portion of the right border of the sternum, without *bruit de souffle*, without frémissement, without expansive or heaving motions. This prolonged sound had its maximum at the origin of the aorta; it was heard strongly along the course of this artery as far as the first intercostal space near the sternum, one of the points where, according to the observation of Prof. Baccelli, sounds produced at the aortic orifice are most clearly perceived. No percussion or auscultation sounds pointing to a circumscribed tumor were perceived; the patient took no peculiar attitude during sleep, but he suffered from shortness of breath. It is not impossible that the rigidity and dilatation of the aorta might have introduced some trouble into the mechanical conditions of the circulation. This circulatory phenomenon might also, as an auxiliary or predisposing cause, explain the frequency and tenacity of bronchial congestion in this patient. This congestion was accompanied by violent spasmodic cough, with painful dyspnœa. The patient was rheumatic, subject to neuralgia, herpetic eruptions, etc., which, together with gouty symptoms, came

later to complicate matters. The diathesis which was manifested in these symptoms was probably the original cause of the attacks of bronchitis and dyspnœa; but it is easily seen how troubles in the central circulation might favor pulmonary congestion. X.

Temporary Albuminuria in Delirium Tremens (Dr. Weinberg: *Berlin. Klin. Wochenschrift*, No. 32, 1876).—Dr. Weinberg had excellent opportunities of studying delirium tremens during his service in the wards of the Hamburg City Hospital, and in thirty-three per cent. of one hundred and fifty-six cases in all, studied by him, he noticed not only the presence of albumen in the urine, but also a relation between its occurrence and the delirium.

His observations were accurately made in but eleven cases, owing to the great difficulty of obtaining the urine several times a day from delirious patients. He gives the following résumé of the results at which he arrived:

1. There is not only a relation in time between the appearance of albumen and the occurrence of delirium, but the intensity of the latter increases with the amount of the former. In some cases, at the beginning and ending of the delirious stage, but traces of albumen can be detected, while in the interval its quantity may reach ten per cent.

2. In none of the cases from which these conclusions are drawn was there any other disease existing as a complication. The temperature was not high in any of them, and the frequency of the pulse was not abnormal except when there was unusual agitation of the patient; nor were any evidences found that would warrant the supposition of the existence of any renal disease. W. A.

Luxation of Both Shoulders (Cossy: *Bulletin de la Société Anatom. de Paris*, 1875).—A patient suffering with phlegmonous abscess of the leg applied for treatment, and upon examining him it was found that both shoulders had been dislocated, the right for five years, the left for three weeks. The patient died suddenly, and at the post-mortem examination the parts surrounding the joint of the left side were in good condition; there was a rupture of the capsular ligament, which was not large enough to permit the head of the humerus to pass through it, and the synovial membrane was reddened, especially around the head of the humerus and along the long tendon of the biceps. On the right side no peri-articular changes were found, nor any tear in the capsular ligament. Upon opening the cavity of the joint, the articular surface was found to have become smaller, and was covered with whitish granulations and separated from it by a ridge. There was seen upon the inner surface of the scapula a somewhat wider new articulating surface. The head of the humerus had changed its shape, being convex on its inner side, which corresponded with the new articular cavity, while the posterior part, which corresponded with the glenoid cavity, was concave. W. A.

Experimental Investigations as to the Conveyance of Typhus Abdominalis to Animals.—Birch-Hirschfeld (*Berlin. Klin. Wochenschrift*, No. 32, 1876), after feeding rabbits with the stools of typhoid patients, came to the conclusion that it was possible in this way to cause in the animals subjected to the experiment a disease very similar to typhoid fever.

R. Bahrat carried out experiments in the same direction, but is not able to support the results of the former investigator. The latter, in his experiments, made much more free use of the stools than the former. The symptoms which should be found during life to establish the existence of a disease resembling typhoid, a continual fever of one or one and a half degrees moderate elevation above the normal temperature, and decided loss of flesh, were wanting, as were also infiltration of Peyer's patches and of the mesenteric glands and spleen, which were sought for at the post-mortem examination of the ten animals upon which the experiments were made. Entirely similar were the results obtained by putting four animals in a large clay cylinder, upon the floor of which large quantities of typhoid stools were distributed. W. A.

Iodide of Starch as an Antidote.—Dr. Bellini, professor of toxicology at the Royal Institute at Florence, recommends iodide of starch as a valuable antidote in poisoning by alkaline and earthy sulphides, caustic alkalies and ammonia, and the vegetable alkaloids. In poisoning by alkaline or earthy sulphides he believes it preferable to all other antidotes; in poisoning by caustic alkalies it is applicable when acid drinks are not at hand.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JANUARY 6, 1877.

EDITORIAL.

MEDICAL SCIENCE.

IN another column we print an account of the communications made to the St. Petersburg Medical Society by the two prominent Russian physicians who were delegates to the International Congress. We leave our readers to recognize how much of truth there is in the censure and in the praise given to the American profession. Our medical educational system is certainly well fitted to serve—like the "frightful example" of the temperance lecturers—to show the results of leaving the medical profession at the mercy of itself and of every dishonest member in its ranks. We sincerely desire — hope would express too much of expectation —before we go hence to see the strong hand of law laid upon the present unbounded license, if not licentiousness, of medical education. It is a matter which must prove a perplexing puzzle to most foreigners, how with such a system we can develop, as we do in every practical branch of medicine, scores of physicians fitted to stand before kings and princes, many of them indeed even veritable kings in their professional realms. Prof. Rudenew has partially hit the solution when he speaks of the education in hospitals, etc., after graduation. For the complete filling out of the equation, however, to this must be added the exceeding earnestness and quickness of the American race, the atoms of which under the catalytic stimulus of desire for worldly success are capable of almost any chemical or vital activity.

In the scientific portion of medicine the American profession is simply nowhere in the world's race; in practical medicine it is everywhere fully abreast with the foremost. In the science of medicine we have developed in the hundred years not one great pathologist fitted to take up the gauntlet with a Virchow, not one great physiologist to compare with Helmholtz or even with Vulpian, not one medical chemist to stand with Hoppe-Seyler, not even a human anatomist to rival Hyrtl. There is not to-day and there never has been on this continent a well-organized physiological or pathological laboratory steadily fruitful in good work. Why is this? It is of course in a measure due to our system of medical education, which does not require the professor of a scientific medical branch to be anything more than a popular orator, or to have any other than a book-knowledge of the branch he teaches. This is not the sole factor, however. It is affirmed that the American brain is a purely practical one, and that we do not produce the material out of which scientists are developed. This certainly is not true. In natural history, in physics, in astronomy, in mathematics, in philology, in every branch of science outside of the fundamental medical sciences, the United States has produced men who stand as peers of the foremost in Europe.

Moreover, there have been men who at thirty have accomplished as much of original work in the medical sciences as have at the same age the most illustrious of our European *confrères*. The promise of the morning, however, is not fulfilled by the noon of life.

The reasons of this are not so much intrinsic to the individual as extrinsic. There are no facilities for work provided; there is no active *esprit de corps* to stimulate to sustained effort; there is no career offered which, whilst affording a modicum of substantial reward, shall give the reputation and influence which atone with many for a pecuniary compensation less than that afforded by the more lucrative professions. It is true that many of those

persons who have done most work in the natural sciences have contended with straitened circumstances all their lives. There is, however, an important difference between the devotee to the natural sciences and the enthusiast in the medical sciences. Both start at twenty years of age, full of enthusiasm, and willing to sacrifice much. At thirty-five or even earlier both find that much of the youthful enthusiasm has been expended, and both have, perchance, become burdened with the responsibilities of marriage and the cares of life. The naturalist or astronomer, however, finds a money-making career closed against him. He is a pure scientist; there is no lucrative application of natural history or astronomy, and without doing absolute violence to his past he cannot adopt any other course of life than that in which he is engaged, and, indeed, is usually not only untrained, but even absolutely unfitted for a new career. The physiologist, who has probably always retained some hold on practical medicine, finds it very easy to slide into a life whose rewards are so immediate, and for whose success the previously-earned reputation makes a most excellent foundation.

It is easy to point out the causes of our extraordinary lack of development in the fundamental sciences of medicine; it is less easy to find an effectual remedy. The proper direction of the present efforts would, however, seem to be clear. In the first place, possible careers should be opened. For this purpose endowed professorships must be provided as the ultimate goal, with fellowships or some similar office, which shall afford some maintenance during the period of probation and waiting. A fellowship of five hundred dollars a year will enable a really earnest man to prosecute his studies; but no professional salary of less than five thousand dollars a year should be thought of, and to this must be added the furnishing of laboratories and the paying of laboratory expenses. The means of livelihood being thus provided, the professor should be compelled to abstain from any attempt at a duplex career, should be allowed to have no connection with practical medicine, and should be required to expend all his energies in his laboratory and class- or lecture-rooms. If this system were adopted, and great care exercised to see that no man be admitted to a professorship who has not given, by personal sacrifice, evidences of natural enthusiasm, and, by work accomplished, proof of the ability without which enthusiasm is as steam without an engine, then might we hope to see American physicians be other than skilled appliers of the Old-World science.

FOOT-BALL.

SINCE the writing of our editorial on foot-ball no casualties more severe than fracture of the arm have occurred on the University grounds, although a broken skull is said to have been produced in a rival institution. The University Hospital is, fortunately, so close to the University grounds that parents may rest assured that all that surgical skill can do will be done for their unfortunate offspring. We trust, however, that Provost Stillé will, if he has not already done so, warn the hospital authorities that they may be ready. The following additional foot-ball rules have been proposed in England, and we trust that they may be adopted here as well as there: they may serve to mitigate the horrors of the game:

1. No match to be played without a surgeon being in attendance on the ground. 2. Should there be a hospital within easy distance, notice to be given beforehand that the services of the staff may be called into requisition. 3. An ample supply of bandages, lint, splints, and other appliances to be kept always in readiness. 4. An ambulance to be in waiting to convey any one who may receive an injury to his home or to the hospital. 5. If an ambulance cannot be procured, then a sufficient number of cabs to be in immediate call. 6. Proper attendants and nurses to be engaged

to wait on the sufferers. 7. Brandy and other stimulants to be kept on the grounds. 8. Crutches and sticks to be supplied for the use of those whose injuries may be only slight, but who yet may require some artificial support to enable them to return to their homes. 9. No game to be played except on ground within easy reach of a telegraph-office.

If it be possible to open the eyes of the American people to the disgraceful condition of medical education in America, our Western *confrères* will probably end their labors by the performance of the miracle. At Louisville, Kentucky, the rival journals, both in the interests of certain schools, both of a partisan type, weekly make their charges and counter-charges, and the daily papers are by no means avoided by the champions of the several interests. Now public attention is being drawn most forcibly to the subject. The Siamese institution variously known as the Louisville Medical College and the Kentucky School of Medicine has been dragged in its medical college body into the courts by a Mr. Sale, who sues for a return of the fees which he had paid for instruction. Before all the credit of the profession has been pulverized, we trust that the Kentucky Legislature will destroy the evil by the adoption of a system of public State examinations.

LEADING ARTICLES.

THE DUTIES AND PRIVILEGES OF EXPERT WITNESSES.

THERE are continually arising in all our courts questions which require the testimony of medical men *professionally*. For some reason, it matters not what, the neighboring practitioner is called upon to give his testimony, and not the professed expert. The experience which has grown out of this custom has shown the need of a wider knowledge in the profession of the duties and rights of the medical expert. It is purposed to discuss the actual state of affairs, proposing no schemes for improvement. Three points are to be considered: 1, What constitutes an expert witness? 2, What are his duties? and 3, What are his privileges?

1. What constitutes an expert witness? An expert witness* is a person who has had special opportunities for observation or study of the subject on which he is to testify. At least it is theoretically so; often a great deal of charity is used in judging of the qualifications of an expert. Thus, in Massachusetts the evidence of an educated practising physician, who had not, however, made mental diseases a special study, has been received upon the subject of insanity.† In our State the ruling is different.‡ In point of fact, the court is the only person who can decide the question.§ Indeed, the failure to make a proper selection for expert witnesses often leads to those disgraceful scenes in court familiarly known as "expert wars."

An evil arising from the present system of securing experts is that the witness is apt to take sides. He hears the statement of the case from the attorney of one side only, expresses an opinion, and then thinks it his duty to sustain his opinion at all hazards. Or, it may be, he takes the moral evidence into consideration, and forms an opinion on the merits of the case, and in this way becomes a partisan. Prof. Reese, in his excellent work, says, "It is his special function carefully to weigh all these facts, —*i.e.*, the facts given in evidence,—to sit in calm judgment upon them, and to deduce conclusions from them which he delivers to the court and jury as his opinions."‖ Hence it follows that a true expert should be biased neither by previous opinion nor by his own idea of right or justice. This could, to some degree at least, be brought about by the character of the examination.¶

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* From necessity, an exception to this rule of excluding opinions is made in questions involving matters of science, art, or trade, where the skill and knowledge possessed by a witness, peculiar to the subject, give a value to his opinion above that of an inference which the jury could draw from facts which he might state. Such a witness is termed an expert, and he may give his opinion in evidence.—Bouvier's Law Dictionary, article "Opinion."

† Prof. Washburn, Am. Law Review, i. 56.

‡ Mere matter of opinion is entitled to no weight at all, unless it comes from persons who first give satisfactory evidence that they are possessed of such experience, skill, or science as entitle their opinions to pass for scientific truth.—11 Casey, 324.

§ 19 Smith, 36.

‖ Reese: A Manual of Toxicology. Philadelphia, J. B. Lippincott & Co., 1874, p. 119.

¶ And in general, scientific men ought to be examined only as to their opinion as to the facts proven, and not to the merits of the case.—Starkie on Evidence, 135.

2. What are the duties of an expert witness? In order to develop the duties of an expert, we must first look at the character of his testimony. The primary kind of evidence brought before a jury is that of facts of which the witness is personally cognizant. From these facts the jury make certain deductions in determining their verdict. Now, if the testimony involve certain technical facts which the jury, from a lack of technical education, are not able to estimate properly or draw correct conclusions, the expert is summoned to testify, not *facts*, but his *opinion* whether this or that conclusion can be drawn from a certain set of facts produced in evidence. But it is the province of the jury to decide upon the reliability of the testimony: hence the expert is not asked what can result from the facts given in testimony, but a supposititious question is propounded, based on an assumed set of facts similar to those given in evidence, and to this the answer is given. The expert witness consequently deals with opinions and hypothetical questions.

In forming the opinion, only those facts actually assumed in the question should be considered in the mental process by which the opinion is obtained, since the witness has no responsibility as to the character of the question. Should the witness, having heard the testimony, have formed an opinion, he must exercise great care to see if the hypothetical question coincides with the facts upon which he has formed his opinion; if it does not, the opinion must be modified to suit the question. The witness is not responsible for the consequences of his answer; nor does he assume to be infallible. His oath binds him to tell the truth; he is asked for his opinion, and he should conscientiously give *his opinion*.* Except as a matter of reputation, it makes no difference whether that opinion expresses what is received or rejected by the generality of the scientific world,† so long as the witness honestly gives his own conclusions: the value of his testimony will be determined by other means.

Hence a question used by some attorneys, "Whether in a case of life or death you would swear that this or that is *certainly so*," is a trick of trade.‡ The expert should also hear all of the testimony produced relating to the subject on which he is to give an opinion; for the hypothetical question may be framed, "Supposing the evidence produced be true, what, in your opinion, would be the result?"

Again, attorneys are seldom experts in the department for which the expert is summoned. Hence he may be frequently consulted by the counsel upon these technical subjects. In duties of this sort he should remember that, as any student of science, he is a seeker after truth; his advice should have this end in view, and not to endeavor to trip up the witnesses on the other side; at the same time he should allow no inaccuracy or carelessness to pass by unnoticed.

All scientific investigations—*e.g.*, autopsies, analyses, etc.—should be made with particular care. The conditions to be observed are *facts*, and to these must the witness testify primarily: his opinions come afterwards, and are based on these facts. Testimony describing experiments carelessly or ignorantly performed is, in effect, perjury,—since it falsifies the true condition,—and should be so considered.

This subject of an expert witness being both a witness of fact and of opinion, while fully recognized, is not usually developed with sufficient clearness. In a case of homicide, for instance, the physician who took charge of the wounded man, or who made the post-mortem examination, testifies so far only to facts. A question may be asked whether, in his opinion, the wounds described were sufficient to cause death. He answers this question from his recollection of the case, and not from his description of it. One may be much more vivid than the other. This really belongs to that class of questions which elicit opinions from non-expert witnesses,—*e.g.*, when it is asked of a witness of a transaction whether the prisoner acted as if insane. No one would call this testimony expert testimony. But the question may be asked hypothetically, embodying the statements given by the witness. The question is now

* For the consequences of his opinions he should clearly understand that he is in no wise responsible. He is bound by the solemnity of his oath to tell all, and to suppress nothing of what he conscientiously believes to be *the truth*, no matter what may be the result to the accused.—Reese, op. cit., p. 119.

† After he has given an opinion and the grounds for it, whether right or wrong, it should be left there.—Elwell: A Medico-Legal Treatise on Malpractice and Medical Evidence. New York, John S. Voorhies, 1860, p. 309.

‡ In the Laros case which was tried in Easton last August, a favorite question by the defence was worded somewhat after this fashion: "Doctor, in a case of so great importance as this, involving the life or death of the prisoner, would you under oath assert"—whatever point that might be under examination.

a general one, freed from the case in point; the answer should be to the question itself, disregarding all recollections. Then does the witness give expert testimony. Hence it is seen that many men employed as experts testify only or chiefly to facts,—*e.g.*, the pathologist who makes the post-mortem examination, or the chemist who makes an analysis. These are brought into the case for the purpose of ascertaining such scientific facts as may be in the province of their investigations.

3. The privileges of experts.

There are three topics to be discussed under this division. I., compensation; II., the obligation to obey the subpœna; III., the character of the testimony.

I. It would seem plausible that any professional man has a right to demand compensation for any opinion which has for its basis his professional knowledge. If the witness is not careful, his claim will stop with the demand. At the outset we must distinguish between expert testimony properly so called, and a scientific investigation. In the older English decision, not even this distinction was made. Thus, in 1832 it was decided that "the surgeon will be allowed only for his attendance on the trial, and not for his fee for opening the body."* At present, and in this State at least, this service is considered as pertaining not to a witness, but to a person employed in a particular service.†

For services of this sort the only matter then to determine is the value of the services. Since the county commissioners are proverbial in rating the value of such services very low, it is wise to have a written agreement. Prof. Reese's advice on this subject is "to insist in advance on a bond duly signed by all the commissioners, or by some equally responsible party,‡ for the payment of the fee agreed upon." But in regard to the office of a witness properly so called. If it is a civil suit, the way is plain, since an English decision, made in 1843, seems to be the precedent. In this decision a witness called to depose to a "matter of opinion depending on his skill in a particular trade has, before he is examined, a right to demand from the party calling him a compensation for his loss of time; and there is a distinction between a witness thus called and a witness who is called to depose to facts which he saw."§ But if the commonwealth summons? Prof. Washburn, of the Harvard Law School, says,‖ "If the case be one of a public nature involving the question of a crime of magnitude, when the public safety requires the investigation, the right to compel the attendance of such a witness becomes an incident to the exercise of government itself, in the same way that a juror is obliged to sacrifice convenience or profit to render a public service." The same reasoning would compel counsel and all judicial officers to *give their services* in cases of great magnitude. Hence it is seen that for work performed, and for opinions in private cases, the expert has a right to demand a fee. In public suits, where the medical man is most usually called, while there is no decision, the probabilities are that he can collect nothing. It is necessary, then, that he should ask for a certain fee in advance, *i.e.*, before he enters the witness-box. If it is refused, he should inform the attorney that he is unwilling to testify; and if that gentleman is willing to risk such a witness, he must either testify, or, by declining, get a decision from the court. The probabilities are that he will either receive his professional fee or not be called to testify.

II. Is a man who knows none of the facts in any case compelled to leave his ordinary avocation and attend a trial simply to give his opinion? He cannot be taken out of his State, of course, but in his own State it seems that he is subject to the same laws and same processes as the man who is acquainted with all the facts in the case. I have been able to find only a single decision on it, and have not been able to see the original of that. In 1858 Lord Campbell decided in the case of Betts *v.* Clifford—a private suit—that a scientific witness was not bound to attend upon being served by a subpœna, and that he ought not to be subpœnaed.¶

The only safe way, apparently, is to obey.

III. The character of this testimony. The ordeal in giving testimony is the cross-examination. Those who may still remember the dread of expectation before their examination for their degrees will

* Rex *v.* Taylor, 5 Carrington and Payne, 301.

† In this case he performed not the office of a witness, but the business of a person employed in a particular service.—Chief-Justice Gibson, 3 Barr, 462.

‡ Reese, op. cit., p. 128.

§ 1 Carrington and Kirwein, 23.

‖ Loc. cit.

¶ Warwick Lent Assizes, 1858, quoted in Taylor's Med. Jurisprudence, Am. ed., 1873, p. 40.

understand, when told that a cross-examination of an expert witness is a realization of that expectation increased by the fact that your examiner is endeavoring to "floor" you and knows little or nothing about the subject. There may be exceptions, of course. Is there, then, nothing to do but to answer patiently all and everything given you to answer,—especially the so-called categorical questions, which are frequently so framed that while requiring yes or no for an answer, neither yes nor no will give the truth; whether from ignorance or design I shall not attempt to judge. While it rests solely with the court to decide how far irrelevant questions may be asked,* a great deal depends upon the witness as to how many questions of this character will be asked. That person who has not yet learned to answer *only the question*, volunteering nothing in addition, is not ready to become an expert witness. After this, the most important requisite (always presupposing knowledge) is the ability to keep one's self thoroughly in hand, calm, cool, collected. Then, as a right, answer no question until its *full* meaning is clear to you: if there is any ambiguity latent in the question, decline answering until it is expressed clearly and explicitly.† If, in addition to this, the witness is careful to use correct English, briefly and positively, the cross-examiner will hardly venture upon the attempt to embarrass, much less to abuse, the witness. Should he do so, an appeal to the court would in all probability give him the desired relief.

CHARLES MCINTYRE, JR.

EASTON, PA., November 20, 1876.

CORRESPONDENCE.

NEW YORK, December 11, 1876.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR,—The twenty-ninth anniversary meeting of the Academy of Medicine was held at the hall of the Academy, on the evening of November 16, and on this occasion the oration was delivered by the Secretary, Dr. W. T. White. Like so many addresses during the present year, it was devoted to the progress made in the medical sciences during the century just closed, particularly in the United States.

At the last meeting of the Academy, December 7, the annual reports were read, and the nomination of officers made; after which Dr. Austin Flint, Sr., read a paper on the "*Results of Clinical Studies in Relation to Phthisis.*" It was principally devoted to a consideration of some of the facts presented in his work on the subject recently published; and he apologized for the circumstance of an author becoming the reviewer of his own work. Much of the book, he said, consisted of dry statistics, which would prove of little interest to the general practitioner, and therefore he had thought it well to offer some of the conclusions which he had derived from his observations in a more compact form, hoping that the results of his studies on this subject, continued as they had been through three and a half decades of life, might thus be of some practical service to the profession. He had divided his cases into three classes: (1) Those in which recovery took place. (2) Those in which the disease was arrested, but without recovery. (3) Fatal cases. The last class he divided into two groups: (1) Those lasting from three to forty years. (2) Those in which death occurred in a year or less. In seven cases, after apparent recovery, the disease recurred, and all of these cases proved fatal except one. In this there were two recurrences; but the patient eventually made a good recovery. Of the fatal cases which were long continued six lasted from eight to forty years, and in not one of these was the disease of small extent. The following were some of Dr. Flint's conclusions:

As a rule, the disease runs a shorter course in females than in males.

It is almost universally fatal when developed during pregnancy.

It is of shorter duration when occurring in patients over thirty years of age than when developed at an earlier period.

Intemperance does not seem to have any effect in shortening its course.

Contrary to the opinion generally entertained, he believed that phthisis, in a certain number of cases, tends to progress towards a favorable termination, and hence he had not infrequently found physicians who, when their patients recovered, thought they must have made an error in diagnosis. In eight out of forty-four cases of recovery there had been no medical treatment of importance, and no change in the habits of life, and the cure seemed to be really due to an intrinsic tendency in the disease itself. Five of these patients were men, and three women, and of the former all were under thirty.

Two sisters recovered without special effort, who were the only surviving members of a large family which had been cut off by consumption. In the case of the others every available means, such as change of climate, sea-voyages, etc., had been tried in vain.

In six out of thirty-one cases in which the

* 5 Watt and Sergeant, 266.

† The witness is entitled to the right—and should insist upon it—of having the question fairly and clearly stated. And he should not attempt an answer until he fully comprehends its bearing.—Elwell, op. cit., p. 309.

disease was arrested there was no treatment employed, and the patients lived from seven to twenty-seven years afterwards. There was also no treatment in one case which was slowly progressing, and in fifteen which proved fatal in the ordinary time. An analysis of all Dr. Flint's cases goes to show that nearly twenty per cent. of patients with phthisis will recover, that in something over nineteen per cent. the disease will be arrested or progress very slowly, and that in fifty-one per cent. it will be fatal; but he regards their number as too few to base any general conclusions upon.

In some instances recovery seems to depend in a great measure on the resolute determination of the patient himself. In speaking of the influence of hygienic treatment, such as a change in the manner of life, out-door exercise, etc., Dr. Flint mentioned that out of forty-four recoveries in fifteen of the cases there was simply this hygienic treatment employed without medication. In the case of ten out of thirty-two patients in whom the disease became arrested or non-progressive, the same means had been made use of to the exclusion of medicine; and of his fatal cases the same was true in twenty-three. In general, he has found that the duration of the course of the disease is nearly twice as long in those cases in which hygienic treatment is employed as in those in which there is neither hygienic treatment nor medication; or in the proportion of fourteen to eight.

He then devoted a few minutes to the consideration of the relative merits of various hygienic measures, like the following:

(1) Temporary change of climate. Is usually attended by a certain amount of benefit.

(2) Change of habits. Seems to exert a more favorable influence than any other one measure.

(3) Change of residence (from city to country, etc.).

(4) Change of occupation.

(5) Long sea-voyages. Often of the very greatest service.

The results of his observations on this subject have gradually induced him to feel less and less confidence in the beneficial effects of any climatic influence alone.

In regard to medicinal treatment, cod-liver oil had proved exceedingly useful in eighty-four cases, and alcohol in seventeen. The hypophosphites had been faithfully tried in sixteen cases, but he had never seen any special benefit from their use.

Dr. O'Sullivan, who stated that he had had twelve years' service in the department of diseases of the chest at the Eastern Dispensary, said that he had constantly observed that a change in the habits of life always had a beneficial influence on cases of phthisis, and mentioned the case of an Irishman, accustomed to work in a foundry, who had been given up as hopelessly ill. Having saved up a little money, however, he was recommended to go back to Ireland on a sailing-vessel, which he did, remaining on the other side for some time. On his return it was found that the disease had been completely arrested, and he afterwards made a good recovery. On the other hand, Dr. Sullivan said he had never seen a case where the patient was closely confined by his or her occupation (like school-teachers, for instance) in which the disease was not progressive.

Dr. Alfred L. Loomis proposed the question, "What is pulmonary phthisis?" He was accustomed to recognize three distinct forms of disease, which were all known as consumption, viz.: (1) catarrhal, (2) tuberculous, (3) bronchial or fibrous. When the second variety existed he considered his patient's doom as sealed. In the catarrhal form a certain proportion of cases tend towards recovery. When a patient presents himself in whom phthisis is suspected, he always questions him very closely as to the origin of his trouble, and if he finds that at first there was an ordinary catarrh, whether nasal, pharyngeal, laryngeal, or bronchial, and that emaciation did not set in until some time afterwards, he is pretty certain that he has not a case of tuberculosis to deal with. If, on the other hand, there has been progressive emaciation from the first, with a hacking cough without expectoration, and no catarrhal symptoms, he at once recognizes the more grave condition.

Then there is what is known as "century" phthisis, characterized by fibrous indurations, with dilated bronchi and resulting cavities.

Dr. Loomis considered it unfortunate that the profession was not more at one in regard to the diagnosis of these various conditions. For instance, a case may present himself to him (Dr. Loomis), and, finding that he had a broncho-pneumonia of limited extent, resulting from catarrh, he would tell him that he had not consumption, but that he was in such a condition that it might possibly set in. Afterwards the patient might go to another physician, who would tell him that he was already in the first stage of consumption, and who, if he eventually got well, would regard it as a case of recovery from phthisis. It seemed highly important, therefore, that medical men should agree as to what is really meant by the signs of incipient phthisis.

It was noticeable that Dr. Flint had not been present when Dr. Leaming read his recent paper on consumption before the Academy, some account of which was given in my last letter to the *Medical Times*, and that Dr. Leaming was not present on this occasion to hear Dr. Flint's paper.

At one of the November reunions of the Medical Journal Association, Dr. A. D. Rockwell read a paper on the "*Differential Indications for the use of the Faradic and Galvanic Currents.*" In order to find these out, he said, not only was a physical and physio-

logical knowledge of the currents necessary, but there was much that could be learned only by practical experience. It had been generally supposed that galvanism was the more useful in the relief of pain; but he had found by experience that in a large number of instances the faradic current was very greatly superior in this respect. In some cases of disease it is impossible to get a good result without employing both currents. In general, he stated that the faradic current should be regarded as strongly tonic, and that the galvanic was more capable of acting upon the central nervous system, as well as exciting nerve-irritability in paralyzed muscles. Asthenopia was among the few distinct diseases which would be benefited by faradism alone, while galvanism alone was to be employed in the treatment of spinal irritation, some of the sequelæ of cerebro-spinal meningitis, and most of the skin diseases in which electricity is useful. In herpes zoster the relief of pain by it is magical. For the relief of the various forms of paralysis, in which electricity has won so deserved a reputation, both currents must be used interchangeably, according to circumstances. In concluding, Dr. Rockwell spoke of the marked tonic effect upon the system of the method of central or general faradization.

The annual meeting of the society was held December 1, when Dr. C. M. Allin was elected President, and Drs. Robert F. Weir and R. F. Walker First and Second Vice-Presidents respectively.

At the November meeting of the County Medical Society the following resolution, reported on favorably by the comitia minora, was adopted by the Society:

"*Resolved*, That the Medical Society of the County of New York recommends to its members the use of the metric system in their prescriptions." In consequence of the above the Secretary was ordered to notify the druggists of the city that they would be liable to have prescriptions sent to them written according to the metrical scale.

Dr. Erskine Mason then reported and exhibited two successful cases of *hip-joint amputation*, the one in an adult male, and the other in an adult female. The first operation was performed on account of an atrophied and useless limb, which was a constant source of annoyance to the patient, and the other on account of the existence of extensive osteo-sarcoma. The operation used in both instances was the circular one. Both patients had gained in weight since the amputation; the lady not less than twenty-five pounds, though but a comparatively short time had elapsed.

Later in the evening, Dr. Alpheus B. Crosby read a sketch of the lives of five eminent medical men who practised one hundred years ago, viz., Josiah Bartlett, Matthew Thornton, Joshua Brachett, Lyman Spaulding, and Nathan Smith, the first two being signers of the Declaration of Independence. It was stated of Dr. Bartlett that he had treated the disease now known as diphtheria with marked success by means of antiseptics and large doses of Peruvian bark, and of Dr. Smith that he was the founder of the medical department of Dartmouth College, that he early performed ovariotomy, without any knowledge of Dr. McDowell's having previously done it, and that he treated typhoid fever by cold affusions, fresh air, and a nourishing liquid diet.

At his last clinic at Bellevue Hospital, Professor Sayre presented several cases of great interest. The first two were cases of *hip-joint disease*, in which he had recently performed exsection, but which had at this time been taken out of the wire cuirass, so that the children were now able to walk about with some little assistance. The first case was that of a little girl who had been almost *in articulo mortis* when the operation was performed, and would undoubtedly have been dead before this had her life not been thus rescued. Notwithstanding the fact that, owing to the excessive suppuration, waxy degeneration of the liver and kidneys has been plainly indicated in her case, the patient is now picking up in the most wonderful manner. In the case of the other child, Dr. Sayre said the operation had proved the most difficult that he had ever performed, on account of the extensive loss of bone and the extraordinary thickness of the involucrum which had been formed in nature's efforts to remedy the existing trouble. The parents stated that the whole amount of suppuration since the operation was not equal to that which previous to it had taken place in a single day; and the patient was now as fat and rosy a little fellow as one could wish to see.

The next case presented was one of exceedingly firm fibrous *anchylosis of the knee-joint*, which had been previously given up as hopeless by two of the most prominent surgeons in the city, but which Dr. Sayre had succeeded in breaking up at his last clinic, a week before. In order to impress the class with the importance of the after-treatment, the dressing was left on the limb two or three days longer than it would otherwise have been, and was now removed in their presence. There had not been the slightest rise in temperature, and the patient had been entirely comfortable ever since the operation, it being quite unnecessary to administer any morphia or anodyne. Dr. Sayre attributes his remarkable success in these cases mainly to three cardinal points in the after-treatment, viz., moderate pressure over the principal artery supplying the part, in order to diminish the supply of blood, firm bandaging, and a sufficient amount of extension constantly kept up. In the present instance compression over the femoral artery, in the lower third of the thigh, was made by means of a small piece of sponge, care being

taken that this should not be so great as to run the risk of setting up gangrene. From this time daily manipulation of the joint, with *massage* over the adjacent muscles, was to be practised until a complete cure should be effected.

The case following was that of a young woman who had had *anchylosis of the elbow-joint*, but who, thanks to the efficient treatment which she had received, had now almost entirely recovered.

Dr. Sayre now presented two little boys who had been suffering from *reflex paralysis* and lack of co-ordination, but upon whom he had recently performed *circumcision* with the happiest results; and then proceeded to do the same operation on a third in presence of the class. The latter was a child nearly two years of age, who had never walked and never talked, and had always been regarded as hopelessly idiotic. He was constantly tossing about in the most restless and unnatural manner, and it was noticed that whenever he did become quiet for a time his legs would be crossed. There was also marked strabismus. The parents stated that sometimes he would scratch and tear himself with his nails until the blood flowed, and that at other times he would beat his head against the wall or floor when permitted to do so. The case was brought to the clinic by Dr. Hoffman, of West Chester County, who had formerly exhausted every means of treatment that he could think of, but for a long time had given up all idea of causing any improvement in it. Recently, however, he had read a report of a lecture by Dr. Sayre on cases similar to this, in one of the medical journals, and it at once occurred to him that possibly this poor child, whom he had long regarded as actually crazy, might be cured by the simple operation of circumcision. The parents stated that the boy was subject to frequent priapism, and it was found that when pressure was made with the finger upon the glans penis an instantaneous spasm was communicated throughout the whole system, and his hands would be slapped with violence against the face. It is a remarkable fact that immediately after the operation the child seemed to recognize its mother (for the first time in its life), and then articulated one or two words. The next day it could both walk and talk.

On the 7th there was quite a gathering of the lights of the profession (principally surgical), as well as an unusually large number of students, in the amphitheatre at Bellevue, to see Dr. Thomas Sabine perform gastrotomy. Among those present were Drs. Wood, Markoe, Mott, Jacobi, Frank Hamilton, Dalton, Sayre, Darby, Sands, Howe, Briddon, Weir, Keyes, and Henry. First, Dr. Sabine gave a very neat little lecture on the case and the operation he proposed. The patient had been admitted to the hospital November 22, and stated that it was two years since he first experienced difficulty in the passage of food to the stomach, and that the trouble had been increasing pretty constantly ever since. After many careful and prolonged examinations it had been concluded that the stricture of the œsophagus which was found was due to cancer, and that gastrotomy offered the only reliable chance of rescuing him from starvation. After describing the method and dangers of the operation, and relating the statistics on the subject, Dr. Sabine stepped out to see whether his patient was ready for him to commence, but returned in a few minutes looking rather blank, and made the unexpected announcement that the man had stopped breathing after the first few whiffs of ether. In a little while, however, he was revived; but Dr. Sabine did not deem it safe to undertake the operation, and Professor Wood announced to the students present that the man was *not dead*, and that ether did *not* kill him. PERTINAX.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, NOVEMBER 6, 1876.

The PRESIDENT, DR. H. LENOX HODGE, in the chair.

Left lung and heart, with fenestrated pulmonary leaflets, and peculiar growth on one of the tricuspid leaflets, from a case of phthisis. By Dr. LOUIS STARR.

J. R., æt. 31, a sailor, was admitted to the medical ward of the Episcopal Hospital on July 6, 1876. He had never been intemperate in his habits, but when a very young man had contracted venereal disease, and at intervals afterwards had suffered from constitutional syphilis, manifested chiefly by falling out of the hair, eruptions on the skin, and sore throat. In other respects his health was good up to the spring of 1874, when he began to be troubled with a dry, hacking cough, had several slight attacks of hæmoptysis, and lost appetite, flesh, and strength. From this time, though there was a short period of improvement during the summer of 1875, his condition slowly grew worse, and he was obliged to give up work about one month before coming into the hospital. When admitted, he was considerably wasted in flesh, and quite weak; his appetite was poor, there was some tendency to diarrhœa, and well-marked hectic fever and colliquative sweating. He complained also of dyspnœa on exertion, and of pain in the left chest, the latter located for the most part in the mammary region, but at times extending from this position around the chest towards the angle of the scapula. His cough was frequent and annoying, and was

attended with a copious expectoration, the sputa being nummular, muco-purulent, and occasionally streaked with blood. An exploration of the chest revealed the physical signs of a large cavity in the upper lobe of the left lung, while over the lower lobe numerous moist crackling râles were heard. The right lung appeared to be healthy, with the exception of the portion corresponding to the infraclavicular and upper part of the mammary regions, where there was dulness on percussion, together with harsh respiration and moist, crackling râles. The first sound of the heart was somewhat feeble, but no murmur could be detected. The urine was voided freely, and was normal in composition. After the patient's admission, the pulmonary lesion progressed uninterruptedly, and death occurred, without the appearance of any unusual symptom, on October 29.

The *post-mortem* examination was made twenty-four hours after death. On opening the thorax the left lung was found to be firmly bound to the chest-walls by old pleuritic adhesions, and was removed with great difficulty. The whole of the superior two-thirds of its upper lobe was converted into a large cavity, lined with a smooth membrane, and having extremely attenuated walls composed of a thin layer of condensed lung-tissue and the thickened pleura, and being in places, as over the anterior surface, scarcely two lines in thickness. In the lower third there were two cavities, each about the size of a walnut, having irregular walls, and being surrounded by indurated pulmonary tissue. All of these cavities were partly filled with a purulent fluid. The lower lobe was indurated, contained numerous small cavities, isolated deposits of cheesy matter, and collections of miliary tubercles, and the bronchial tubes traversing it were dilated. At the apex of the right lung there was a moderately large anfractuous cavity, and throughout the remainder of the lung a number of the small masses of caseous material in various stages of degeneration. The heart was small and slightly flabby; there was no alteration in the relative size of its chambers, and the aortic and mitral valves were perfectly normal. The posterior and right leaflets of the pulmonary valve, however, were fenestrated; and attached to the auricular surface of the anterior leaflet of the tricuspid valve, at a short distance from its free margin, was a round, moderately firm, reddish-brown body, about the size of a pellet of No. 4 shot. The liver was enlarged and fatty. The kidneys were healthy.

Fluid from abdominal cysts. By Dr. H. LENOX HODGE.

One was taken from a unilocular cyst containing nineteen pints. The fluid in small quantity had the appearance of ordinary water. In bulk there was a very light straw color to it. Its specific gravity was 1007. It does not contain albumen.

The other was taken from one large cyst of a multilocular tumor. This cyst contained thirty-four pints of fluid. It is almost as colorless as water, and as it ran from the canula during the tapping had very much the appearance of starch-water. Its specific gravity was 1008. It does not contain albumen. The other cysts of the tumor were not tapped. Some of them are filled with very thick semi-solid contents.

The microscopical examination of these fluids will be very interesting, as both of the cases will possibly sooner or later require the operation of extirpation. The presence or absence of the "so-called ovarian cell" as a diagnostic sign can thus be tested by members of the Society. The specimens were referred to the special committee on ovarian fluids.

SOCIETY OF PRACTICAL PHYSICIANS OF ST. PETERSBURG, RUSSIA.

OPINIONS ON THE STANDING OF THE AMERICAN MEDICAL PROFESSION.

ON the 28th of September a communication was made to the Society of the Practical Physicians of St. Petersburg by Dr. Wiwodzow, who was ordered to Philadelphia by the medical department of the Russian Ministry of the Interior, and for this purpose received more than three thousand dollars. It was entitled "Communication on a Visit to the World's Exhibition at Philadelphia." The doctor said that he had become thoroughly acquainted with the organization of the medical institutions, and had come to the saddest conclusion with regard to them. He said that the medical sciences were utterly neglected, that young men entered the Universities entirely unprepared for a medical study, and that, besides this, the whole course extended only over two years. Most unfavorable were his impressions of the Women's Medical College. He said that the medical knowledge of the female physicians displayed the greatest deficiency; that they have no success whatever, and only very little practice; that they are never admitted to prominent or public positions in societies, nor asked to take part in consultations with male physicians.

In response to the appeal of the chairman, Prof. Rudenew said, *inter alia*, "To us Russians, and, in fact, for all Europeans, it was very interesting to become acquainted with the standing of the medical profession of that country, where the conditions for the development of medical science, indeed where all the social relations, differ so essentially from the European. The difference consists principally in the fact that in America the medical institutions have their origin in private enterprise, without any meddling of the government and

without any assistance from the public funds, and are conducted by private individuals. From these important circumstances it is easy to explain the existence of the large number of different medical schools, which are not bound by any legal regulations. There is in Philadelphia one especially devoted to women. And in reality the American female physicians are distinguished for their scientific study. The professors of this school are for the most part women; the female clinical lecturers have extended practice. The most medical schools of America are distinguished for the good character of their arrangements, and for the entirely satisfactory organization of their lecturing method and the programme of the branches. Dr. Wiwodzow's statement that in all American medical schools the course extends over only two years is incorrect. In the Women's College and in several others the course is decidedly three years. That the education of the student is thereby finished is not true. The students usually do not leave the college immediately after graduation, but carry on their education especially in the numerous excellent hospitals of that country, where admission is everywhere free to them. In this manner they become usually good practical physicians. In connection I may state that the American student in general spends a larger number of hours daily in study than any other student in the world.

"In consequence of this complete freedom in the matter of education, and in consequence of the fact that all medical institutions, as above stated, have their origin in private means, often in fact through voluntary contributions, there are besides the general medical schools also those in which only one branch of practical medicine is taught. As instances I can mention the dental and orthopædic institutions. In artificial teeth and limbs, hands, fingers, etc., the American physicians cannot be excelled. It is worthy to remark that Americans have toothache much more frequently than other nations, probably from the very enormous use of ice. Likewise the number of maimed persons is astonishing,—probably the result of injuries received from machinery, which in that country is developed to an immense extent. These evils have therefore given rise to the specialties of artificial teeth, limbs, etc., which can almost be used as living members."

Further, Prof. Rudenew spoke very favorably of the International Medical Congress in Philadelphia. On the general character of the proceedings of the Congress he remarked that in the working of the American physician a greater practical utility reigns paramount; of work based on experiments comparatively little was brought forward. The American physicians in general do not investigate diseases experimentally; they merely observe and treat them; and in this they have achieved many important results. F.

REVIEWS AND BOOK NOTICES.

CLINICAL STUDIES. By SIR JOHN ROSE CORMACK, K.B. Philadelphia, Lindsay & Blakiston, 1876. 2 vols. 8vo, pp. 548, 579.

Although bearing an American imprint on the title-page, both the appearance and the colophon show this to be an English book. It consists mainly of various papers published in medical journals from 1837 to the present time, and now collected in book form, with some additions. There is a curious mixture of subjects,—surgical, medical, and obstetrical. Thus, we find one paper on a "successful resection of the shoulder-joint;" several on fevers, on diphtheria and its sequels; and others on puerperal convulsions, dystocia from cystous kidney, and the value of the dark abdominal line as a test of recent delivery. The author has been a prominent practitioner among the English residents in Paris, and this fact, together with his very creditable connection with the "English Ambulance" of Sir Richard Wallace during the two sieges of Paris, probably accounts for his varied experience. We must confess that we feel disappointed after having read the volumes with considerable care. The essays were good in their day, no doubt, but they are mostly of a past age in their pathology. They contain little of anything that is novel in clinical facts, in methods of treatment, or in philosophical deductions. They are just such a collection of "clinical studies" ("clinical records" would have been a better name) as any respectable practitioner of forty years' experience could publish. They have been published already in the journals, and, except for more convenient reference and a certain and perhaps pardonable feeling of personal gratification, they might as well have been left to slumber there.

To this stricture, however, we ought to make some exceptions. The paper (vol. i.) on hernia of the uterus is a valuable contribution in the way of a collection of cases from generally inaccessible sources. He narrates two cases of hernia of the unimpregnated uterus and four (he says five, but only records four) of the pregnant uterus. In the latter the fœtus was extracted by operation at full term, with the unexpected but instructive result of saving all the children and three of the mothers. The paper on chronic poisoning by chloroform is also valuable, especially as it contributes the history of a case of recovery from almost fatal chloroform narcosis by inversion of the body,—a method of treatment which no one will be apt to forget or neglect after reading this case or the dramatic description of a similar one by Marion Sims.

In the earlier papers Dr. Cormack is scrupulously careful to give even the minutest directions in Latin, and on nearly every page we find such directions as "Quiescat," "Surgat

è lecto hodie per horam unam," "Abradatur capillitium; et applicetur aqua frigida diligenter toti capiti donec capitis dolor mitescat," etc.,—an apparent pedantry which he outgrows in his later cases. It is surprising, therefore, to find him speaking (ii. 452) of "one of the *court-martials* . . . at Versailles."

W. W. K.

GLEANINGS FROM EXCHANGES.

Signs of Pneumonia of the Apex in Children (*The British Medical Journal*, November 4, 1876).—According to L. Fleischmann (*Wiener Med. Presse*, No. 20, 1876), the following symptoms are connected with commencing or already existing pneumonia of the apex in young children, in whom it is often difficult of detection by physical signs. The symptoms are always unilateral on the same side as the affected lung. 1. Swelling of the lymphatic glands of the neck, nape, and submaxillary region, without apparent local cause. These swellings are in direct proportion to the extent of the pulmonary affection. Infiltration of the glands before and behind the ears has no connection with the lung-disease. 2. Obstinate, often-recurring scrofulous conjunctivitis; some forms of unilateral scrofulous keratitis. 3. Recurrent eczema of the half of the face or head. 4. Certain forms of disorder of the sympathetic system; pallor, redness, erythema of the cheeks and temples, pressure-erythema. Similar conditions are also met with in cerebral diseases, the absence of which must be ascertained. In several cases also of cerebral tubercle, Fleischmann has found infiltration of the apex of the lung on the same side. 5. Intermittent neurosis of the sympathetic; redness and increased temperature of the skin on the affected side. 6. Neuralgia of the fifth nerve; neurosis of the oculo-motor and vagus nerves.

Transfusion (*The Medical Examiner*, November 2, 1876).—At a meeting of the Royal Medical and Chirurgical Society, Dr. Roussel, of Geneva, demonstrated his apparatus for the performance of direct transfusion from vein to vein, the object of which is to prevent the coagulation of the blood that is drawn, and therefore to do away with the necessity of defibrination: it is composed wholly of hardened pure caoutchouc, which, unlike ordinary vulcanized caoutchouc, has no effect on the blood. Dr. Roussel's instrument is made up of a tube with a Higginson's syringe in its course, the alternate compression and expansion of which allow an uninterrupted flow of blood to take place; the bulb is perfectly smooth internally, and has a capacity of ten grammes, so that the quantity of blood transfused can be exactly measured. The tube communicates with a rigid cylinder, open at each end, and applied over the seat of the vein required to be punctured; the cylinder is fixed to the arm by being surrounded by a rigid cup, which can be exhausted by an elastic pump in connection with it. The cylinder within it is then closed by the introduction at its upper extremity of a scarificator, the exact depth of which can be regulated. At the moment of operating, this lancet is depressed into the vein. Before, however, this is done, all air is driven out of the cylinder and tube by filling these with tepid water, by means of the ball-syringe and a second tube entering the cylinder opposite to the conducting tube. To the extremity of the latter a mouth-piece provided with two canulæ is attached. One of them is introduced into the vein of the recipient. At the junction of the canulæ is a stopcock to direct the flow of fluid into one or other of them. The apparatus being filled with water, the vein is opened by the scarificator, and the contents of the cylinder and tube pumped out. The water being expelled through the free canula until blood only flows from it, the stopcock is turned, and the blood is injected into the patient's arm.

Dislocation of the Neck.—Dr. Charles Orton reports (*London Lancet*, December 16) the autopsy on a man who had died from a dislocation. It was a pure and total dislocation between the atlas and axis; the head, to which was attached firmly the atlas, was thrown forwards, the odontoid process thus pressing on the front of the cord and causing instant death. The posterior and other ligaments connecting the atlas and axis and axis and occipital bone were ruptured, but there was no fracture, not even of the odontoid process, and no rupture of the transverse ligament.

The eye-witnesses stated that the man was stooping forwards, with the chin slightly turned to the left. The blow was delivered under the right angle of the jaw by the right-hand fist, partially from behind, and partially sideways, to the deceased, who fell towards the left, but backwards, and "seemed dead at once." He never moved after falling.

Abdominal Section.—Mr. Thomas R. Jessop, of Leeds, and Dr. James Edmunds, of London, report (*Lancet*) two cases of abdominal section performed in the London Temperance Hospital, each resulting successfully, both as regards the mother and child. Mr. Jessop's case, by far the rarer, indeed almost unique, was one of extra-uterine gestation, the child being lodged in the midst of the bowels, the placenta covering the outside of the fundus of the uterus and the inlet of the pelvis like the lid of a pot. The uterus was, of course, not opened; its cavity measured only two and a half inches. The placenta was not removed. Great pains were taken to leave it untouched, and to leave an opening in the lower part of the abdominal wound for the escape of placental débris and other discharges. Dr. Edmunds's case was

one in which the Cæsarean section was necessitated by the existence of a large tumor filling the pelvic brim and cavity. The patient had been in labor sixty hours, for twenty of these in hard expulsive labor without any progress.

A Case of Aortic Aneurism treated by Electrolysis; Failure.—Dr. John Homans reports the following case (*Boston Medical and Surgical Journal*, November 16, 1876). A man fifty years of age was admitted to the hospital with an enormous aneurism of the arch of the aorta. The tumor had pushed through the walls of the thorax in the left upper pectoral region, forming an external pulsating swelling as large as a man's fist. Five gilded needles, insulated to within a quarter of an inch of the point, were inserted into the sac of the aneurism; the needles were pushed inwards about an inch and a quarter beneath the skin, and when all were inserted they described a circle round the apex of the tumor. The battery used was an ordinary Stöhrer's, the needles being connected with the positive pole, while the negative pole was joined to a large metallic disk which was covered with a compress wet with salt and water. This was applied to the epigastric region, and moved about occasionally as the skin beneath it became irritated. The number of cells used varied from eight to ten, which were all the patient could bear without much pain. The needles were kept in the aneurism during forty minutes, but since after a time the skin around some of them became slightly discolored, either bluish or pale, and somewhat sunken over a circle about two millimetres in diameter, these were removed and fresh ones (of steel) were inserted at neighboring points, ten punctures being made in all. Bubbles of gas and a little dark blood followed the needles as they were withdrawn. The patient bore the operation well, but became a little faint afterwards. The next day the pain through the back and down the arm was less. The tumor looked somewhat blue. Two weeks later electrolysis was repeated; the tumor was then somewhat larger than when the patient entered the hospital. The operation was repeated in a manner similar to the first, excepting that steel needles were used. The depths at which the needles were inserted were from one and five-eighths to two inches.

The patient left the hospital at the end of three weeks, convinced that his pain was less than when he entered. The tumor, however, was larger, and the impulse was about the same.

Phosphorus in Leucocythæmia.—At an extended discussion of the use of phosphorus in leucocythæmia in the London Clinical Society, the result arrived at was unfavorable. The nearest to recovery under its use was in a case of Dr. Broadbent of the lymphatic form of the disease. In this the patient seemingly got well, and remained so until carried off by intercurrent disease, which reminds one of the horse that was taught to live upon a straw a day, but unfortunately died of an intercurrent affection before he got to the point of subsisting without rations. One or two cases of improvement were detailed, but the record was mostly of dreary failure. Dr. Moxon's experience was the most extensive, and was of the most cheerless character, as in no one of thirty cases had any good resulted from the use of phosphorus.

Death from Chloroform.—In the issues of the *British Medical Journal* for November 11 and December 16 are recorded cases of death occurring in boys during chloroformization. In both cases the operation for section of the hamstrings was being performed. In both cases inversion of the body was practised, but produced no good results.

Gouty Delirium.—Dr. T. Churton reports (*British Medical Journal*, December 16) cases of gouty delirium, of which the following is selected as typical:

Case II.—A gouty officer aged 82. In March, 1874, he had bronchitis, and some arthritis and urinary trouble. During treatment, delirium came on. He was violent, accused his relatives of various crimes, though previously upon the most affectionate terms with them; absolutely refused medicine; and was, in fact, excessively troublesome. The pulse was bounding and regular; the delirium was active; he shouted, not muttered. It was necessary at length to force open his teeth (many of which remained) by means of a strong spoon, and to introduce upon the handle of another spoon a mixture of calomel with powdered gum, which he tried very hard to spit out, but could not. Twelve hours after this, the calomel had had no effect, the delirium was muttering, and the pulse irregular and weak; but shortly afterwards there was a large fluid offensive evacuation, and he began to mend immediately. The diet was regulated, and he was recovering quickly, when one day he talked too long with a friend, and a garrulous delirium succeeded, with insomnia. Again he would take no medicine. He was not febrile; his bowels were clear; therefore ten grains of chloral were given in some porter which he wished for. He then slept for several hours, and awoke free from delirium. This occurred a second time. He is now (1876) in good health for his age, but vision is impaired.

Dr. Churton states that he has never seen gouty delirium in persons under forty-five years of age.

Milk Diet.—In the London *Lancet* for December 16 is a clinical lecture by Dr. Geo. Johnson on the use of milk diet, which he commends most highly in chronic diarrhœa, dysentery, and acute Bright's disease. The chief stress is, however, laid upon the value of the method in *acute and chronic cystitis*,

and one case of rapid and complete cure in a very severe case of two years' duration is reported. The method of administration is as follows:

The milk may be taken cold or tepid, and not more than a pint at a time, lest a large mass of curd, difficult of digestion, form and collect in the stomach. Some adults will take as much as a gallon in the twenty-four hours. With some persons the milk is found to agree better after it has been boiled, and then taken either cold or tepid. If the milk be rich in cream, and if the cream disagrees, causing heartburn, headache, diarrhœa, or other symptoms of dyspepsia, the cream may be partially removed by skimming. One reason among others for giving the milk, as a rule, unskimmed—that is, with the cream—is that constipation, which is one of the most frequent and troublesome results of an exclusively milk diet, is, to some extent, obviated by the cream in the unskimmed milk. As a rule, it is unnecessary, and, therefore, undesirable, to add bread or any other form of farinaceous food to the milk, which in itself contains all the elements required for the nutrition of the body. When the vesical irritation and catarrh have passed away and the urine has regained its natural character, solid food may be combined with the milk, and thus a gradual return may be made to the ordinary diet, while the effect upon the urine and the bladder is carefully watched.

There are some patients with whom, unfortunately, milk in any form, and even in small quantities, so decidedly disagrees that it is for them as unsuitable a diet as any other form of indigestible food would be.

The doctor also suggests the employment of the milk diet as a preparation for the operation of lithotomy, and states that he has seen two cases in which the vesical irritation and catarrh resulting from a stone in the bladder were much mitigated by the milk diet, the patients being thereby brought into a more favorable condition to undergo successfully, the one the operation of lithotomy, the other that of lithrotrity.

Intestinal Obstruction of Eighteen Weeks' Duration.—Dr. John G. Blake reports, in the *Boston Medical and Surgical Journal*, November 23, 1876, the case of a man who was suddenly attacked by total obstruction of the bowels, without pain or fever, lasting eighteen weeks and finally resulting in death, probably from starvation.

During the course of the affection much relief was gained and the patient's life undoubtedly prolonged by the use of the aspirator to remove accumulated flatus. This was used at first every few days, later several times every day, the patient himself learning to insert the tube and some member of the family performing the operation of pumping.

The size of the tube used was the smallest No. 1 *filière* charrière, one-third of a millimetre in diameter.

Simple Treatment of Quinsy.—Leslie Thain (*Canadian Medical Journal*, 1876, p. 413) believes gargles of alum, tannic acid, and such similar astringents useless for the purpose of astringing the vessels sufficiently to "press back" the inflammation. His plan is to apply externally hot fomentations (with a few drops of turpentine) to the throat, and then to wrap up the whole neck in flannel. Constant heat, moisture, and mild counter-irritation are to be kept up by frequent changing of these applications. The feet must be at once put in a hot mustard bath, and if the patient will then get into bed between blankets, so much the better.

Gargles as hot as can be borne must be begun as soon as possible, and the most useful is a solution of carbolic acid, one part to forty of water. If the patient cannot gargle, carbolic acid in glycerin (one to twenty or thirty) should be frequently applied by means of a feather to the parts. A brisk saline aperient may be advisable. By following this plan of treatment the inflammation subsides in a few hours, never running on to suppuration, and then a simple alum gargle may be serviceable.

MISCELLANY.

The well-known scientific periodical published in Germany under the name of Dubois-Reymond and Reichert's *Archiv*, and formerly as Meckel's and subsequently as Müller's *Archiv*, is to be divided into two parts. One is to be devoted to physiology, and will be edited by Dubois-Reymond and Ludwig; the other to anatomy, under the management of Braune and His.

Contagiousness of Diphtheria.—A whole family, consisting of father and mother and two children, were attacked with the disease, and carried off in a short time. The attending physician, Dr. Regnault, died in twenty-four hours. Dr. Biset, who attended Dr. Regnault, was then attacked, and expired after a very brief illness. Further, almost every servant connected with the family is also dead of the disease.

Colliquative Diarrhœa.—Dr. Bonfigli recommends most highly chlorate of potassium in colliquative or nervous diarrhœa without intestinal lesion. He advises the increase of the dose until a beneficial effect is observed, beginning at half a drachm in the twenty-four hours, and increasing to two or three drachms if requisite.

Transfusion.—A unique case of transfusion occurred December 9 at the London Hospital. The well-known surgeon, Mr. Adams, performed amputation at the hip-joint. The patient, after the removal of the limb and the securing of the arteries, showed

signs of succumbing. Dr. Adams bared his own arm, and allowed about seven ounces of blood to be transfused, with the result of reviving the dying man. He then proceeded to the completion of the operation, and finally sent his patient back to the wards.

Dr. Lyon Playfair aided the Duchess of Edinburgh in her late performance of domestic duties at Malta.

NOTES AND QUERIES.

Mr. Editor,—I should be glad to see published in the *Medical Times* what I send you, copied from an English newspaper. There is not a medical practitioner in this city who cannot give instances of gross mistake or of improper conduct on the part of those who put up his prescriptions. I know myself of one that occurred within a few days, where no iodide of potash whatever could be detected in a bottle that was doing no good, very much to the prescriber's chagrin. He had expected the effect of ten grains in each teaspoonful.

It is not a month since I went myself to a shop kept by a very prominent member of the College of Pharmacy, in order to get a copy of a prescription which had been refused my patient *because the prescription belonged to the apothecary*. As the patient resided in New York, this view of things would be attended with some slight inconvenience when her bottle needed refilling. While taking a copy for myself, with an air of some embarrassment the apothecary informed me—for I had not told him why I wished to see the prescription—that he had substituted another substance for one of the ingredients that he did not have in his shop.

I was refused on one occasion a half-ounce of brandy, although it was for my own wife, who was in a fainting condition, "because liquor was not dispensed over the counter," by a concern that recently sold four ounces of laudanum to a man in a state of intoxication, with which the poor fellow destroyed his life.

I need go no further, for every one of your readers has had experiences similar to my own.

On some accounts it is disagreeable to declare a decided preference for certain apothecary-shops, but no medical practitioner should hesitate to tell his patient where he *must* go to have his prescription put up. He owes this to himself, to his patient, to his profession, and to the community at large.

Most respectfully yours,

'50.

DRUGGISTS AND DOCTORS' PRESCRIPTIONS.

Mr. William Thomson, F.C.S., recently read an elaborate paper before the Literary and Philosophical Society of Manchester, entitled, "On the Degree of Accuracy displayed by Druggists in the Dispensing of Physicians' Prescriptions in different Towns throughout England and Scotland."

Mr. William Thomson tells us that his attention having been called to the results obtained by Mr. Allen, Public Analyst of Sheffield, with regard to the inaccuracies of druggists in making up prescriptions, he determined upon an investigation in different parts of England and Scotland. He submitted two very ordinary prescriptions to no less than eighty-one druggists of every position in various towns of Scotland and England, from Inverness to Liskeard in Cornwall. The prescriptions made up were most accurately analyzed. The results are most carefully exhibited in successive tables drawn out in the course of the memoir, and are summarized by Mr. Thomson as follows:

"In looking over the above table it will be seen that only two druggists out of the eighty-one have given exactly the required weight of the potassium iodide; thirty-four have given *more* than the prescribed amount, and forty-five *less;* but it may be of further interest to notice that when the whole of the quantities of potassium iodide given by the eighty-one different druggists are added together, the total quantity comes to two hundred and twenty and a half grains *less* than it would have been if each druggist had dispensed the exact quantity."

Some of the cases are startling. We see in the table that a druggist in Oldham gave in an equal quantity of fluid only 60.5 grains of potassium iodide instead of 120 grains; and more shocking still, one in Loughborough gave only 44.2 grains! In the zinc sulphate ointment a "low" druggist in Altrincham gives actually 8.1 grains of the sulphate instead of 40 grains, or one-fifth of the right prescription! Mr. Thomson continues:

"Not one dispenser has succeeded in making the prescription to the exact strength in either the mixture or lotion."

Against this charge of inaccuracy it may be urged that the accuracy required by the author of the paper is exaggerated, and that no druggist ought to be expected to dispense within anything like scientific limits of error. To this Mr. Thomson replies:

"With a view to decide what amount of inaccuracy a pharmacist would consider allowable, I consulted a gentleman who is a partner in an establishment which does a considerable business in dispensing. After informing him of the investigation I had been making, I asked him what amount of inaccuracy he would consider allowable in dispensing 120 grains of potassium iodide in six ounces of fluid, and also for 40 grains of zinc sulphate in two ounces of fluid. He considered that in both cases they ought to be absolutely accurate, but if I allowed three-tenths of a grain either way I should be allowing sufficient for all practical purposes. I have, however, been still more lenient than my pharmaceutical friend, and have allowed five-tenths of a grain. . . We, as analysts, can weigh easily to the one-hundredth part of a grain, and I know that balances used by dispensers for weighing such quantities as 120 grains are capable of turning with the tenth part of a grain if kept in good condition; and I think, under such circumstances, it would be absurd for any one to contend that it is impracticable to weigh drugs within half a grain on these premises. At least, we might add, no balance should excuse a variation of five, ten, or twenty, or even, as in some of the cases given, *sixty* and *eighty* grains."

But inaccuracy is not the only danger, as the following remark, among others, will show:

"No. 18 (from Airdrie) dispensed the chloroform without any spirit, so that it remained insoluble at the bottom of the bottle. This error might have proved serious if the last dose in the bottle containing all the chloroform had been swallowed by the patient."

As we are going to press is announced the death of Dr. Jos. Carson, Emeritus Professor of Pharmacy and Materia Medica in the University of Pennsylvania.

ERRATA.

The following *errata* are herewith corrected in Dr. Allen's article on the Anatomy of the Cerebrum:

For *segmentum* read *tegmentum*.
For *cerbea* read *cortex*.
For *claustruna* read *claustrum*.

One of the assistant physicians of the State Hospital for the Insane, at Danville, Pa., resigns on account of indisposition. The undersigned will rceive applications for the vacancy. Applicants must be single, graduates in medicine of a respectable school, of irreproachable moral character, and will give the date and place of graduation and the extent of their preliminary training. Address

S. S. SCHULTZ,
Danville.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM DECEMBER 17, 1876, TO DECEMBER 30, 1876, INCLUSIVE.

Forwood, W. H., Surgeon.—Assigned to duty at Raleigh, N. C. S. O. 182, Department of the South, December 16, 1876.

Tilton, H. R., Surgeon.—To take post at Cantonment at the mouth of Tongue River, M. T. S. F. O. 46, Headquarters Department of Dakota (in the field), September 11, 1876.

Brown, H. E., Assistant-Surgeon.—When relieved by Assistant-Surgeon Spencer, to comply with orders from A. G. O. in his case. S. O. 182, c. s., Department of the South.

Adair, G. W., Assistant-Surgeon.—Granted leave of absence for one month, with permission to leave limits of Department and apply for an extension of one month. S. O. 225, Department of Texas, December 13, 1876.

Crampton, L. W., Assistant-Surgeon.—On return from leave of absence, to report in person at these Headquarters for assignment. S. O. 247, c. s., Department of the Gulf.

Spencer, W. G., Assistant-Surgeon.—Assigned to duty at Fort Barrancas, Fla. S. O. 182, c. s., Department of the South.

Buell, J. W., Assistant-Surgeon.—Assigned to duty at Columbia, S. C. S. O. 188, Department of the South, December 27, 1876.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, JANUARY 20, 1877.

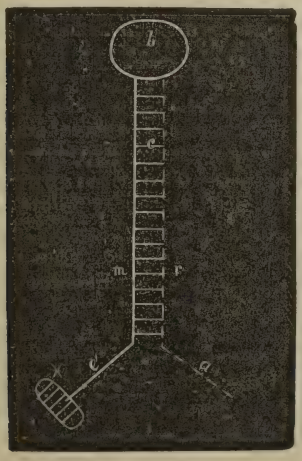
ORIGINAL LECTURES.

ON THE ACTION OF DRUGS UPON THE MOTOR SYSTEM OF ANIMALS.

BY PROF. H. C. WOOD.

Delivered at the University of Pennsylvania, December 20, 1876.

THE object of to-day's lecture is to familiarize you with the general principles involved in the study of the action of drugs upon the motor system, and with methods of investigation rather than with facts in regard to the influence of individual agents. In starting it is necessary to get a clear idea of the plan, so to speak, of the nervous system. Although we are not in a position fully to elaborate this plan from anatomical and purely physiological investigations, yet the data obtained by the scalpel of the anatomist, pathologist, and physiologist, with the well-established facts of experimental therapeutics, suffice to show us that the general arrangement is such as I am about to detail to you. I have drawn on the blackboard—to represent my idea—the accompanying diagram: above, the



cerebrum (*b*); below, the spinal cord (*c*); at the sides the nerves (*a*, *e*) and the muscle (*x*). The cord, for our purposes to-day, may be looked upon as a double organ: the dotted line (*r*) representing the receptive portion, the uninterrupted line (*m*) the impulse-giving portion: running across from these two parts, everywhere binding them together, you must remember, are commissures. From the circumference of the body to the receptive portion of the cord run nerves (*a*), which are the afferent or sensory nerves, whilst from the motor portion of the cord pass the nerves to all parts of the body,—the so-called efferent or motor nerves (*e*). Now, let us suppose an irritation to be applied to the afferent nerve (*a*); it sets in motion a vibration, or a something,—an influence, if you choose,—which travels along the nerve. For the sake of brevity and clearness, let us waive all theory as to the nature of this, and speak of it simply as an impulse. This impulse, then, starting at the periphery, travels up the afferent nerve to the receptive spinal tract, and then passes up to the brain, or across to the motor tract of the cord. If it do the former of these actions, it gives origin to a sensation; if the latter, to an impulse from the motor cells, which passes down the efferent nerve (*e*), and manifests itself by contractions of the muscle (*x*); the movements which result being reflex actions. The brain itself originates the impulse which is to be converted into voluntary motion; this impulse travels down the motor tract (*m*), and finally out through the efferent nerve (*e*) to the muscle (*x*). In all probability, however, the impulse does not pass directly from the brain. It probably acts upon the centre or cell which presides over the individual muscle, causing it to generate the impulse which goes directly along the nerve to the muscle concerned. It is very probably the same cell which sends forth the final motor impulse to the muscle, acting precisely in the same manner, whether it be provoked by an impulse transmitted from the receptive centre of the cord, and thereby produces a reflex movement, or whether it be provoked by an impulse from the brain, and thereby causes a voluntary movement. It is plain that a drug may arrest or put an end to reflex actions by paralyzing the afferent nerve (*a*), the receptive part of the cord (*r*), the motor spinal tract (*m*), the efferent nerve (*e*), or the muscle (*x*). Now, if we administer to a frog a dose of bromide of potassium of the proper size, there is produced a condition of complete loss of reflex activity; nevertheless, if you watch the flaccid frog, whose feet you can destroy by acid or flame without producing a quiver, you will be startled by

seeing him make great leaps through the air. And if you place him on his back he will scramble round to his normal position, guided apparently by his eyesight. What does this prove? Evidently, that the motor tract from the cerebrum to the muscle preserves its function, that the pathway from the brain along the uninterrupted line (*m*, motor spinal tract; *e*, efferent nerve) is not blocked up. Chloral, like the bromide, paralyzes the reflex action; but you see in this rabbit how differently it acts from the bromide. The animal lies sprawling, nearly paralyzed, reflex activity almost abolished. You hear, as I simply pinch the ear with my finger, how the animal squeals. Now, the rabbit is a dumb beast, and only cries under severe pain or during excessive fright. This rabbit is not frightened, and the amount of pain inflicted would be unnoticed by the normal animal. Evidently you have here marked hyperæsthesia; evidently chloral produces increased sensibility with lessened reflex action. It is very plain that the pathway of the dotted line up along the sensory nerve to the receptive centre of the cord, and along the receptive centre to the brain, is not blocked up: consequently the chloral reflex palsy must originate either in the motor tract of the cord, in the nerve, or in the muscle. Now, if we apply the poles of our battery to the sciatic nerve of the frog poisoned with chloral, we get very active contractions in the tributary muscles, showing that the nerve and muscles are intact and that the block is in the motor tract of the cord itself (*m*). You can now readily see why in the rabbit before you, poisoned with chloral, voluntary motion is lost as well as reflex activity: the portion of the cord employed by both processes is compromitted by the drug.

Again, let us take the nitrite of amyl; it lessens reflex action but does not produce any apparent loss of sensation. It does not block up the pathway along the interrupted line,—the afferent nerve and the receptive part of the cord. When you tie the artery of the frog's hind leg, and thereby prevent the access of the poison to the nerve-trunk, the paralysis produced by the nitrite still develops equally in the legs. When you galvanize the motor trunks in the dead frog, the muscles respond. Evidently the nitrite of amyl diminishes reflex activity by an influence upon the motor tract of the cord.

Let us now go back to the bromide of potassium, which of the three remedies is the only one we have found to act upon the sensory tract (represented by the dotted line). Is it the peripheral afferent nerve (*a*) or the receptive tract of the spinal cord (*r*) which is attacked? Unfortunately, we are not here absolutely sure of our evidence. I have not myself experimented, but at least four observers state that when in the frog the artery of a limb is tied so that none of the poison can reach the afferent nerve (*a*), the paralysis of reflex action is produced as rapidly as usual by the drug. If this be correct, it is plain that the bromide of potassium causes reflex palsy by paralyzing the receptive centres of the cord. Damourette and Pelvette assert, however, that under the experimental circumstances just spoken of the protected limb does not lose its power of originating reflex movements as rapidly as do the other limbs. They further assert that there is a stage when galvanization of an afferent nerve-trunk produces reflex movements although the same stimulus applied to the skin is powerless. Evidently, if their experimental results be correct, the bromide acts especially upon the peripheral nerves. The great value of the bromide of potassium in tetanus and strychnia-poisoning would, however, seem to indicate a spinal influence; and I am inclined, therefore, to believe in the correctness of the experimental results reached by the German investigators, Eulenburg, Gutmann, and Lewisky, the American, Roberts Bartholow, the Irishman, Purser, and the Frenchman, Laborde, rather than in those arrived at by Damourette and Pelvette, and to believe that bromide of potassium acts chiefly upon the receptive spinal centres.

The alkaloid conia produces, like nitrite of amyl, a palsy of both reflex action and of voluntary movement. This shows that by it the motor tract, the uninterrupted line of our diagram, is affected. It is very easy to show that of this motor tract the efferent nerve is paralyzed. All that is necessary is to apply to a muscle of the frog dead of conia a mild galvanic current, and subsequently to the nerve itself the same current: under these circumstances it will be found that the muscle contracts when stimulated directly, but that the current avails nothing when applied to the nerve-trunk. Conia, therefore, paralyzes the nerve-trunks. Of course it may also para-

lyze the motor tract of the cord. An experiment, however, of the French observers MM. Pelvette and Damourette, indicates very strongly that the conia does not paralyze either the efferent nerve (*e*), the receptive centre (*r*), or the motor tract (*m*). The observers just mentioned so divided the tissues and secured the vessels of a limb that none of the poison could reach the efferent nerve (*e*). The alkaloid having been given, palsy ensued in every member except that supplied by the efferent nerve (*e*). Remember, the afferent nerve (*a*) was reached by the poison, but, nevertheless, irritation of its periphery produced reflex actions in the limb supplied by the protected efferent nerve (*e*), but nowhere else. The afferent nerve and the spinal cord must, therefore, have been intact. Again, these observers gave to a frog prepared as before, strychnia and conia simultaneously; everywhere throughout the batrachian reigned the most profound quiet, save in the leg supplied by the protected nerve; this was violently convulsed. The conia reached the spinal cord, but did not paralyze it so as to interfere with the exciting action of the strychnia, although it did so benumb the motor nerve-trunks as to prevent them from carrying the convulsive impulses from the cord to the muscle.

The principles which I have thus briefly endeavored to portray to you apply to convulsive agents as well as to paralyzants. Our hour has, however, so nearly expired that I cannot enter upon this branch of the subject. Let me say one word to show that what we have been speaking of has not a merely theoretical interest. Take the case of strychnia. Having found that the alkaloid causes convulsions by acting upon the spinal cord, the question suggests itself, Is it the receptive centre (*r*) or is it the motor tract (*m*) which is affected? The answering of this question is something more, I repeat, than a mere refinement of physiology. If we could prove that the receptive portion of the cord receives the stimulation of the poison, we would know that the bromide of potassium is the antidote; but if the strychnia acts upon the motor tract, then chloral would be preferable in poisoning by it. If once we can get at the mode of origin of the strychnic convulsion and its proper treatment, we can hope that ere long tetanus and its scientific treatment will be well understood.

ORIGINAL COMMUNICATIONS.

REPORT OF A CASE OF INTRA-MURAL UTERINE TUMOR, RESULTING IN ABSCESS, WHICH EFFECTED A CURE.

BY J. L. SUESSEROTT, M.D.

Read before the Franklin County Medical Society, January 2, 1877.

SOME time about the latter part of March of last year (1876) I was consulted by Mrs. M. W., æt. 43 years, in regard to her condition. She suspected that she was *enceinte*, but the evidences were entirely unlike those of a former pregnancy. From the shape of her abdomen, which was pyriform, with the apex at the umbilicus, and her sensations as described to me, a suspicion was aroused that I had a case of ventral pregnancy to deal with. I did not make a vaginal examination, but promised to do so when the surrounding circumstances, which were then not suited, would permit. This intention was not carried out, and on the 5th of September I was called to attend her in labor.

I found her having pains, but totally unlike any I had ever witnessed in a case of obstetrics. Whilst they were somewhat rhythmical, they were not in the least tenesmic, and were much more feeble than we generally observe during the first stage of labor. These manifestations, although unlike true uterine contractions, were still *too* much like them to satisfy me that all of the pressure was caused by contraction of the abdominal muscles, or that it was the simulated labor said to exist about the ninth month in cases of abdominal pregnancy; but my mind was still impressed with my former fear, which was not at all quieted on my attempting to find the os uteri. On introducing my finger into the vagina, I found the pelvic cavity filled up with something that was outside of the vaginal walls, and that entirely precluded the possibility of my reaching the entrance into the womb. When my thoughts would be occupied with the idea of an extra-uterine pregnancy, I would be immediately met with the fact that the woman had completed the full term of gestation without accident; but how to explain the condition of things without that hypothesis, I was unable.

Fearing that any rude exploration or extensive investigation might result in the rupture of the membranes, if these were

without the uterus, and speedy collapse of the patient, I concluded to send for assistance, and without further delay I dispatched a messenger for Dr. S. G. Lane, requesting him to come prepared to encounter a case that might require Cæsarean section. In due time the doctor arrived *cap a-pie*, and, upon making an examination, appeared to be as much perplexed as I had been. After some little discussion of the situation, he proposed that he would lift the entire abdominal mass up towards the chest, after the patient had been fully anæsthetized, and that I should make an extended examination through the vagina.

With considerable effort he was enabled to free the pelvic cavity so far as to allow my right hand to pass above the umbilical line, where, much to my gratification and relief, I encountered the protruding bag of waters, from an os pointing towards the heart, sufficiently dilatable to warrant immediate delivery, if possible. Having ruptured the membranes, and securing the right foot, it being the first that was reached, I succeeded in bringing into the world a very large and healthy boy. Dr. L. immediately remarked, "Here is another one;" but on placing my hand over the abdomen I was satisfied that instead of it being a child it was the object that had filled up the pelvis, had almost inverted the uterus, and had been the cause of all of our trouble. The placenta, which was perfectly normal in size and character, was removed without any difficulty, and upon causing the womb to contract we could distinctly feel a well-defined tumor within the left and front wall of that organ, and had to content ourselves with waiting for further developments.

On the second day after delivery I found the patient suffering from a high degree of peritoneal inflammation, which I combated with the external use of spt. terebinth. and the internal administration of veratrum viride, ergot, and quinine. Her condition was a precarious one for four or five days, intense soreness continuing in the tumor for even a longer time; but at the end of eight or ten days, with the exception of the abdominal burden, she was in a tolerably safe condition.

About this time I intrusted her to the care of Dr. L., during the period of a visit that I contemplated making to Philadelphia, expecting immediately on my return to commence a series of injections of ext. of ergot, with the hope of reducing or possibly removing the abnormal growth. Having remained away longer than at first expected, and the patient having convalesced to that degree as no longer to require the attention of Dr. L., on my next visit, about four weeks after the accouchement, I found her with scarcely a vestige of the tumor remaining. Suppuration and rupture had ensued, discharge per vaginam had followed, and almost the entire mass had disappeared. She informed me that on the second day after Dr. L.'s last visit she was seized with a severe rigor, which was soon followed by a very profuse discharge of an exceedingly offensive fluid from her vagina, which had continued, in decreasing quantities, up to the time of my visit; and at a subsequent visit, on the 26th of December, when I found her and her child in robust health, I learned that this very disgusting sanguino-purulent discharge had continued until about the first of that month, when it ceased entirely, and that in about a week after she had a return of her menstrual flow, natural in quality and very liberal in quantity. At this visit an examination was made for the purpose of discovering, if possible, any vestiges of the former growth, but they had all disappeared, leaving her with the prospect of continued good health.

Dr. L. subscribed to my opinion that the violence which was unavoidable in order to extricate the child had induced sufficient inflammation in the tumor to favor the production of an abscess which had proved so fortunate a means of cure.*

That such a termination of these undesirable cases is possible is a fact well worth remembering, and the method of exploring the abdominal cavity, as suggested by Dr. L., ought not to be forgotten, for, without some such procedure, with the aid of a competent assistant, the accoucheur, no matter how expert professionally and able physically, would be entirely powerless to effect delivery, unless the face-and-knee position was assumed by the patient, which, in cases similar to the one under consideration, I fear would be of little avail.

* A medical friend has suggested that the uterine contractions may have so effectually cut off blood-supply as to favor the softening and disintegration of the tumor; but the fact that no change was noticed in its density until the discharge occurred would substantiate the idea that suppuration set in remote from its periphery, and that when the emptying-out took place it was by a sudden rupture of the walls. The arrested supply of blood would rather have favored gradual atrophy, or, if entirely occluded, would have resulted in softening and sloughing of the entire mass.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. T. G. MORTON.

Reported by STACY B. COLLINS, M.D.

(Continued from November 11, 1876.)

RICHARD P., the subject of paracentesis thoracis mentioned in my last report (Case III.), left the hospital in September,—too early for his own good. In October I saw him once, when his condition seemed critical. He was much emaciated, had a severe cough, and a profuse purulent discharge from the opening made by the bistoury. His whole side was tympanitic on percussion, and the left lung perfectly useless. There is no doubt that this state of affairs was partly due to exposure to cold, poor food, and improper surroundings. On November 18 he was seen by Dr. Morton, when his condition had decidedly improved, discharge had lessened, and he was gaining flesh.

IV.—TRANSVERSE FRACTURE OF PATELLA; USE OF MALGAIGNE'S HOOKS.

Bridget S., æt. 29, married, a washerwoman, was admitted September 28, 1876, with a transverse fracture of the right patella, caused by striking it on the edge of a step in falling.

Treatment.—The leg was elevated on an inclined plane, and lead-water and laudanum applied to subdue swelling. On October 7, after etherization, Malgaigne's hooks were adjusted by Dr. Morton and the fragments brought into close contact. The leg was still extended on the plane, morphia exhibited, and charpie soaked in carbolized oil of the strength of sixteen parts of olive oil to one part of carbolic acid was applied.

There was some pain during the first night, but from this time the condition of the patient steadily improved. There was no heat, swelling, or marked redness about the limb, and she was free from pain, with good appetite, and without fever.

On the 21st, the hooks, which had become slightly loosened, owing to the continuous pressure exerted on the skin and fleshy parts, were tightened, and on the 29th they were removed. The limb was, however, kept extended. On November 2 a posterior splint was applied and the patient allowed to get up, and on November 24 she was discharged cured, with a firm bony union.

V.—TRANSVERSE FRACTURE OF PATELLA FROM MUSCULAR VIOLENCE; USE OF MALGAIGNE'S HOOKS.

Thomas L., æt. 34, married, a letter-carrier, of Irish birth, was admitted October 14, 1876. He stated that the day before, when stepping from the back of a wagon upon his left foot, he felt the leg suddenly give way and he fell to the pavement. On attempting to rise he found the limb unable to support him. When admitted, a single transverse fracture of the patella was discovered. There was considerable pain and swelling about the knee, subdued as in the former case by anodyne lotions, rest, and the use of the inclined plane. On the 18th the swelling was subsiding, but the separation of the fragments amounted to three-quarters of an inch. On the 21st, Malgaigne's hooks were applied, but it was found impossible to unite the pieces for the whole extent of the fracture. Subsequent efforts, however, and a tendency on the part of the fragments to draw together, remedied this defect. No serious swelling or other complication occurred, and on November 11 the hooks were removed, leaving good osseous union.

VI.—CANCER OF RECTUM; COLOTOMY (OPERATION COMPLICATED BY CYST OF THE KIDNEY); DEATH.

Mary S., æt. 50, married, a housekeeper, born in Ireland, was admitted, October 26, 1876, with constipation, nausea, vomiting, want of appetite, and general prostration. Upon examination, a large cancerous mass was found compressing and apparently entirely surrounding the rectum a few inches above the anus. In the centre was an aperture barely large enough to admit the point of the little finger. She stated that about two years since she was seized with violent pain in the abdomen, followed by severe hemorrhage, and from that time her health failed and she was troubled with constipation. It being evident that any attempts at palliative measures would be useless, and as she was suffering great pain in the abdomen and had not had a passage of any amount for fourteen days, an operation was decided on, and, on November 1, Dr. Morton performed the usual operation for lumbar colotomy. Upon entering the abdominal cavity, a cyst which, from its position, was supposed to be attached to the kidney, was encountered, a string passed through it, and it was pulled partly

out of the wound while its contents, consisting of about ten ounces of a clear fluid without urinous smell, were evacuated. The colon, which had been pushed downward and forward by the cyst, was now reached, opened, and the edges of the wound stitched to the skin by interrupted silver sutures. Almost immediately a small fecal discharge took place. The patient was removed to bed and stimulants and opiates administered. She rested comfortably and seemed much relieved. At the end of forty-eight hours the bowels were fully evacuated, and this occurred once again before death, which happened on the fourth day from simple exhaustion, no signs of peritonitis having showed themselves. A post-mortem examination was refused by her friends.

VIII.—RUPTURE OF QUADRICEPS TENDON FROM MUSCULAR VIOLENCE.

Thomas F., æt. 47, unmarried, a hostler, of Irish blood, presented himself at the hospital in December, 1876. On the 4th of July last, whilst attempting, owing to an alarm of fire, to run quickly downstairs, he tripped, catching his right heel. He went on, but after standing a few minutes at the front door attempted to turn and found himself very lame. The knee immediately began to swell, and he was confined to bed for some days. At this time he was seen by Dr. Morton and myself. The swelling finally yielded to fomentations, etc., but he was left with a permanently weak knee. He was able to extend his leg, but could not stand on it without danger of falling, and at such times had a "dragging pain" above the patella. Soon after, a posterior splint was applied, and by means of this and a cane he was enabled to walk. Afterwards an apparatus, consisting of a leather band above and below the knee with knee-cap and steel side braces, was put on, with the intention of protecting the knee from any extreme flexion. He now walks fairly, though with some limp, and states that there has only been slight, if any, improvement in his condition for the last three months. On examination, a broad depression was found above the upper edge of the patella and extending round to the inner side of the knee, large enough to allow two fingers to be laid in it, and so deep that it was possible to insert the finger-tips under the edge of the bone. On the outside, however, a ridge was left in the line of continuation of the vastus externus. The diagnosis was accordingly confirmed of rupture of the quadriceps extensor except that portion formed by the tendon of the externus, which by its attachment to the patella and thus to its ligament still allowed the power of extension that the patient possessed. I am indebted for many of the particulars in the above cases to Dr. Hopkins, the resident surgeon.

TRANSLATIONS.

Acute Ammoniacal Collapse.—W. Roser (*Centralbl. f. Chirurgie*, 1876, p. 694) read before the Medical Union of Marburg a series of cases of acute ammoniacal collapse, from which he drew the following conclusions: 1. Acute ammoniæmia arising from absorption of decomposing urine excites sudden collapse, with decided lowering of the temperature of the blood. 2. In cystitis and pyelitis this lowering of the temperature may serve as a diagnostic sign of ammoniæmia. 3. If the originating cause of the acute ammoniæmia can be removed without loss of time, for instance, by puncture of the bladder, urethra, or pelvis of the kidney, the collapse is frequently observed to pass off. 4. Ammoniæmia deserves much more attention at the hands of surgeons than it has heretofore received. x.

Cases of Erysipelas of the Mucous Membrane.—F. Hesse (*Centralbl. f. Chirurgie*, 1876, p. 694) publishes six cases, observed by himself and others, in which acute febrile angina appeared simultaneously with erysipelas upon the external skin, the former being supposed by H. to be erysipelatous also. As regards the symptoms, Hesse speaks of the initial chill, the high fever, the intense reddening with considerable swelling and diminished secretion of the mucous membrane, together with enlargement of the neighboring lymphatic glands. All the cases observed ended favorably, though in two instances necrosis of the mucous membrane (diphtheria) was observed. Hesse draws the conclusion from these cases that erysipelatous inflammation may occur not only in the external skin, the organ most frequently attacked, but also in certain mucous membranes, particularly those of the

nose, the mouth, and the throat, whether the affection occurs as the direct result of an endemic erysipelas, or whether it is conveyed to these membranes from the neighboring skin. The diphtheria observed in two cases is, according to H., no peculiar diphtheria, but merely a necrosis due to the severity of the inflammation, analogous to erysipelas gangrenosum of the external skin. x.

Poisoning by Chloral.—Dr. August Frank calls attention (*Berliner Klin. Wochens.*, 1876, p. 530) to the great variety of doses recommended as maximal by different writers upon chloral. These range from two grammes (thirty grains) to eight grammes (two drachms). The Prussian Pharmacopœia has adopted one to five grammes as the range. Frank gives also two cases of drunkards coming under his care, in whom 1.25 grm. caused death in one instance, while 2.5 grm. produced a fatal result in the other. The symptoms in the first case were quiet sleep lasting some eight hours, then sudden collapse, brief convulsion, and death. Moderate congestion of the brain, slight intestinal catarrh, and emphysema of the lung were the only post-mortem appearances. In the second case the patient, after taking the medicine in two doses immediately following each other, fell into quiet sleep. Six or eight hours later he began to breathe irregularly, and before a physician could be summoned was dead. Excepting unusual fluidity of the blood, no abnormal post-mortem appearances were observed. The chloral was of good quality, and had been used successfully in other cases. Frank regards 2.0 to 2.5 grm. (30 to 40 grs.) as the proper maximum dose of chloral. x.

Pathology of "Taking Cold."—Dr. Aphonassieff, of St. Petersburg (*Rudnew's Journal*), undertook a series of experiments upon animals with a view of ascertaining what effect would be produced upon the parenchyma of the various internal organs by cooling the blood circulating near the surface. Microscopic examination of the organs of animals killed by the reduction of their temperature showed certain changes in the structures of the liver, the heart, and the kidneys, which pointed to inflammation of these organs. The muscular fibres of the heart were swollen, and their striations for the most part had disappeared. Some fibres showed waxy degeneration, but most were opaque and granular; the nuclei were not visible. Fine granular cells containing a double nucleus were also met with. Somewhat similar appearances were observed in the kidneys and liver. Dr. A. believes the inflammatory process to have been set up by the afflux of cooled blood from the periphery to the centre acting as an irritant upon the internal organs. He believes his experiments to have a bearing upon the common affections grouped under the title of "a cold," which he considers due to the cause just mentioned. x.

Symptomatic Glycosuria.—H. Quinke (*Berliner Klin. Wochens.*, Nos. 37 and 38, 1876) gives notes of a case of cirrhosis of the liver in which the appearance of sugar in the urine and other fluids of the body was a prominent symptom, and in connection with the case alludes to other instances in which similar observations have been made. Claude Bernard observed glycosuria in dogs in whom the portal vein had been gradually closed, the sugar appearing whenever the animal was fed with starch. Couturier found, in the case of cirrhotic patients, that the urine passed after eating starch contained sugar, while that passed during fasting did not contain any. The glycosuria in these cases was transitory. In the same paper, Quinke calls attention to the fact that in opium-poisoning glycosuria is a symptom, and may possibly be an aid to the detection of the poison when other signs fail. x.

Preventive Trepannation in Fractures with Displacement of the Fragments of the Internal or Vitreous Layer of the Cranium.—M. C. Sédillot (*Centralbl. f. Chirurgie*, 1876, No. 48) warmly recommends prophylactic trepannation in injuries of the skull with splintering of the vitreous table, in order to avoid inevitable and almost always fatal complications. Sédillot has collected 106 cases of the kind, in which 77 were trepanned; 9 by way of prophylaxis. In 68 of these, seven complications, paralysis, loss of consciousness, etc., were observed. Among the latter 21 were trepanned before the fifth day, 47 after the fifth day following the injury. In 21 cases the outer table was not fractured. Of the 29 not trepanned, 28 died, 1 was cured. Of the 77 trepanned, 29 were cured, 48 died. Prophylactic trepannation gave 6 cured, 3 fatal cases. Of 68 trepanned upon the appearance of brain-symptoms, 23 were cured, 45 died. Sédillot

speaks of the difficulty of diagnosis when the outer table is not fractured. In these cases he prefers to wait for brain-symptoms. x.

Lactic Acid as a Hypnotic (*Centralbl. f. Chirurg.*, 1876, No. 41; from *Deutsche Med. Wochens.*).—Mendel alludes to the fact that W. Preyer first recommended lactic acid as a hypnotic in 1875. He deduced this from the circumstance that in extreme muscular and nervous exertion followed by sleep, certain matters, particularly lactic acid, are formed, which, passing into the blood, cause weariness, drowsiness, and finally sleep. Preyer recommended this substance as an antifebrile and sedative in mania and certain forms of spasm. L. Meyer employed the lactate of sodium in cases where morphia was used habitually, and came to the conclusion that the former medicine could only in exceptional cases supplant morphia. Meyer obtained also similar results with the pure lactic acid. Mendel himself has employed the latter extensively of late, and is of the opinion that in all cases where pain is the cause or accompaniment of sleeplessness lactic acid fails to act. On the other hand, Mendel recommends this medicine in—1, vigilance occurring during exhausting disease or convalescence; 2, for quieting insane patients, particularly during violent mania; 3, in certain obscure psychical disturbances. As for the method of employing this medicine, it may be given as a lemonade, with water and sugar, the dose varying from 5 to 10 grammes—80 to 160 grains.

Subcutaneous injections of lactic acid cause painful boils, abscesses, etc. The best method of administration is by enema. The dose thus given varies from five to twenty grammes, which is mixed with about the same amount of soda, and only a sufficient quantity of water added to fill a child's enema-syringe. Given in this way daily for weeks, no untoward results have followed the use of the remedy in Mendel's hands. x.

Localized Tuberculosis of the Liver (J. Orth: *Virch. Arch.*, Bd. lxvi. p. 1).—Orth has twice observed that very rare pathological condition, large localized deposits of tuberculous masses in the liver. In the first case there was a cheesy mass of the size of a walnut, surrounded by numerous smaller deposits in the right lobe, accompanied by universal miliary tuberculosis and some disseminated tubercle of the liver.

In the second case there was tuberculous peritonitis, and but little change of other organs. There was extensive cheesy degeneration of the portal and retro-peritoneal lymphatic glands, and, with a small amount of disseminated tubercle of the liver, a tuberculous tumor as large as a man's fist, and lobulated. These tumors had been felt through the abdominal parietes during life, and a diagnosis of cancer of the liver given. Orth is inclined, on account of the size of the tumor and the similarity which he noticed under the microscope between it and the so-called solitary tubercle of the brain, to regard the affection of the liver as primary, and to refer the infection of the lymphatic glands to it. w. a.

Treatment of Boils.—Dr. Ory (*La France Méd.*, 1876, p. 807) gives a summary of the various forms of treatment recommended by different authorities for furuncles. M. Savignac, besides mild purgatives, orders the following:

℞ Sodii arseniat., 10 cent. (grs. 1.6);
Aquæ dest., 200 grms. (f℥vj, f℥iij). M.

Of this one dessertspoonful is to be taken before breakfast and tea, in a little water.

Furuncles are frequently observed in dyspeptics. In these cases alkalies are to be recommended: the waters of Vichy, Vals, etc., the bitters calumba and quinine, nux vomica, and the like, are also of use, and plenty of out-door exercise is advisable. Dr. Hardy has great faith in the prolonged use of tar-water ("goudron de Guyot") in the dose of a dessertspoonful in a glass of water. Dr. Bulkley, of New York, has proposed the following as a prophylactic: hyposulphite of sodium grs. 25, three times a day in plenty of water. To be taken at meal-time: Dr. B. also recommends large doses of sulphate of quinine. Dr. Hall, of Cincinnati, suggests—

℞ Tinct. arnicæ flores, 2 pts.;
Acid. tannic., 1 pt.;
Pulv. acaciæ, 1 pt.

A fragment of lint wet with this mixture to be placed upon the boil and changed every fifteen minutes until a coating is formed. This causes the throbbing pain to disappear, diminishes the tension of the integuments, causes the abortion of the boil, or, if too late for that, hastens the separation of the core. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JANUARY 20, 1877.

EDITORIAL.

MEDICAL AND PHARMACEUTICAL LEGISLATION.

ON the last day of December, 1876, the California State Medical Law went into operation. Under its provisions there are three Boards of Examiners, who have the power of granting licenses. If our information concerning this bill be correct, it requires the practitioner to have a diploma from some chartered medical college; but in order to make room for the number engaged in practice in California without such diploma, it allowed up to January 1, 1877, the passing of examination before one of the boards to take the place of the diploma. Hereafter the door is closed to all non-graduates. This law is apparently based upon the deadly fallacy that an American medical diploma is a guarantee of a sufficient knowledge of medicine. It may do some good in California, but would work harm here, except in doing away with the prejudice against law which is a nightmare with many of the profession, and especially violent with those whose interests are best served by maintaining the present *status quo.*

Various attempts have been made in California to originate new licensing boards, but these have all failed; so that there are in the State only the three legitimate boards, which, with the licenses already granted by them, are as follows:

Medical Society of the State of California	700
Eclectic Society	40
Homœopathic Society	50

Hereafter the would-be practitioner of medicine in California must show his diploma to one of these boards and receive a license.

There is one advantage in this regulation: every one has to stand somewhere; and, the lists being public, no opportunity will be offered for the smooth rascals who practise anything. Such will be reduced to some such shift as that said to be practised in the upper part of this city by a man and his wife. This worthy couple, united in the same buggy at the patient's door, before getting out in one of its members, inquires which is wanted, regular or homœopathic. If the latter, the harmless daughter of Eve emerges; if the former, the brother if not the direct descendant of the bloody Cain.

In 1872 the Pennsylvania Legislature passed an act which provided a State examining board that should grant the right to practise pharmacy. Unfortunately, the gentlemen who prepared and insured the passage of this law inserted a section which limited the action of the bill to those persons who are not graduates of some incorporated college of pharmacy. At first everything worked smoothly. The diploma of the Philadelphia College of Pharmacy differs from that of the medical colleges in that it is an honest document, which really guarantees that the possessor of it is also the possessor of a fair amount of pharmaceutical knowledge: so that the fault in the bill did not work injury. It is very possible, indeed, that it was expected that the passage of the bill should work good to the classes of the College of Pharmacy. If so, or if not so, still a fatal mistake was made, and the seed sown is now bearing fruit. In 1871 the General Assembly granted a charter to the Pennsylvania College of Pharmacy, and last October this new college commenced its operations. The announcement lies on the table before us, and is sufficient to carry conviction to every mind as to the character of the enterprise. The only name which appears upon it is that of a Dr. Martin Roche, who may possess all the

virtues as he has hitherto certainly shared the obscurity of him whose praises the great elegiast sang,—

> "Here rests his head upon the lap of earth
> A youth to fortune and to fame unknown,"—

but who we fear is destined to share in the reputation of Drs. Paine, Buchanan, *et alia*. This dread is upon us because we read in the circular that the institution "is especially authorized by its charter to confer degrees *whenever merited*" (italics as in the original); also that persons are invited "to come forward" without attending lectures; also that pharmaceutical and medical students "can matriculate at this college with the encouraging prospect of graduating *one year sooner* than by attending two courses in any one institution."

Before leaving this subject, we cannot refrain from reiterating that no valid objection exists to a State examining board; that the only real obstacle in the way to a reform in pharmaceutical as well as in medical education lies in the indifference of the laity and of the general profession, and in the active opposition of those of the profession whose interests are served by maintaining the present *status quo*. The objection that the boards would become mere political hacks has become "stale, flat, and unprofitable." In California the medical societies appoint the licensing boards; in this city the pharmaceutical board, appointed by the mayor, was composed entirely of men fit for the position, and a fair proportion of them men of marked eminence in their profession. If the pharmaceutical societies were to ask it, the examining board could be appointed by the courts, or even by the College of Pharmacy itself. If the medical profession were to demand it, a law could be obtained under which the examining boards would be appointed by the courts or by the three legal State medical societies,—regular, homœopathic, and eclectic,—as in California.

Recently the New York County Medical Society adopted a resolution advising the use by their members of the French or metric system in prescribing medicines. There can be no doubt of the superiority of this system of weights and measures over any other before the modern world. This would seem to be evident in itself, but is certainly shown by the steady advance of the system in popular favor, and by its almost exclusive adoption by scientists throughout the world. How far the practitioners and especially the druggists of New York are prepared for the change we do not know. The *Medical Record* appears to believe the times are ripe. In this city, however, and much more throughout the rural districts and smaller cities of the United States, neither the prescribers nor the compounders of medicines will, according to our thinking, pay any attention to the matter at all. It is probable that in the course of years the metric system will replace our weights and measures; but the Anglo-Saxon race seems especially obstinate in delaying to adopt such changes. So long as none of the practical business of the country is carried on by means of these decimal weights and measures,—so long as professors do not teach and English pharmaceutical and medical authors do not write upon such basis,—so long is it unwise to judge the change nigh at hand. We are glad of the action of the New York Society,—we are glad of all agitation about the matter,—because it hastens the inevitable but long-distant day. Nevertheless, we believe that those of our readers who dread new modes of thinking need not be disturbed, and that they will long be able to possess their souls in patience,—probably until their generation has passed away.

The English parliamentary annual grant of two thousand pounds for scientific investigations into the causes and processes of disease is in future to be placed at the disposal of the Royal Society.

LEADING ARTICLES.

RECENT PROGRESS IN THE TREATMENT OF VENEREAL DISEASES.*

I.—NON-SYPHILITIC.

A LITTLE book recently published in Paris under the joint authorship of two well-known specialists, MM. Diday and Doyon,† contains a very fair résumé of the present state of our knowledge upon the subjects of which it treats. M. Diday's portion of the book treats of the therapeutics of venereal disease. While containing nothing very new, it is written in so agreeable a style as to be very interesting reading. M. Diday sums up the experience of thirty years in the treatment of gonorrhœa somewhat as follows:

The ordinary course of gonorrhœa may be divided into four stages, comprising a first stage of very short duration, during which the disease may, in certain cases, be made to abort; a second irrepressible stage, which commences about the third day, and lasts from four to six weeks or longer; a third stage, called "repressible," which is marked by symptoms announcing the "maturation" of the discharge; and a fourth, "chronic" stage, in which the disease becomes stationary.

The first stage is characterized by a feeling of warmth during micturition, perceived about two and a half days after exposure, and by the appearance of a drop of semi-transparent discharge at the meatus. The "abortive" treatment may be practised at this period with success, or, in any event, without injury. A solution of nitrate of silver, one part in ninety,‡ may be injected to the amount of a drachm by the surgeon, contact being limited to the first two inches of the canal and maintained during five minutes. Artificial urethritis sets in within an hour or two and lasts one or two days, and in successful cases the trouble is then cured. A second attempt, should the first fail, is rarely successful.

In the second stage, when the discharge is over three days old, when it amounts to an hourly drop, when pain attends micturition or erection, when the lips of the meatus are red and shiny, repressive treatment is useless or harmful. "The secret of success," says Diday, "lies in patient expectation throughout this second stage," such expectation being disguised by various *placebos* (demulcent drinks, warm baths, etc.), and supplemented by various hygienic precautions (abstinence from spirituous and malt liquors and the like, avoidance of conjunctival inoculation, and the use of a suspensory bandage).

The "repressible" stage is attained gradually, after a mean duration of five or six weeks, sometimes less, very often longer. Not unfrequently two and a half to three months elapse before it is reached. Its signs are almost entire absence of pain during micturition and erection, disappearance of the red and swollen condition of the meatus, and a considerable diminution of the discharge, which is no longer yellow or green, but whitish and viscid. This condition being attained, a suppressive medication may be instituted with good prospects of success. Diday's favorite remedy is the *opiat* of copaiba and cubebs. Properly administered, in suitable doses, this drug should, in the course of less than a week, cause the discharge to cease. The administration should be continued during a second week, to prevent recurrence. Should the discharge continue after the sixth day without showing signs of amendment, the use of this drug should be suspended. If, however, the symptoms have begun to ameliorate, the drug should be pushed.

As regards the stationary stage, the last and chronic result of untreated or maltreated gonorrhœa, there is little or no pain; the discharge is of small amount; the disease has become refractory to the use of copaiba and cubebs; and it readily becomes subacute under the influence of irritating agencies. In such cases the main reliance lies in the use of injections; that of Ricord, prescribed as follows, being preferred by Diday:

℞ Zinci sulphatis, gr. viij;
Plumbi acetatis, gr. xvi;
Tinct. opii,
Tinct. catechu, āā ℥ss;
Aquæ destillat., ℥iv.—M.

Sig.—Three injections daily.

Copaiba is no longer useful unless the disease is still somewhat acute, and then

* Most of the facts contained in the first part of this article are derived from the admirable digests of Drs. T. B. Curtis (Boston Med. and Surg. Jour.) and Drs. R. W. Taylor and R. F. Weir (Archives of Dermatology), which are frequently quoted nearly verbatim.

† Thérapeutique des Maladies Vénériennes et des Maladies Cutanées. P. Diday et A. Doyon. Paris, 1876.

‡ This is much stronger than is advised nowadays by some of the best authorities. Van Buren and Keyes say, "The only allowable abortive treatment, so far as nitrate of silver is concerned, is its use at the strength of gr. ss to ℥i."

only after abstinence from the use of the drug during at least six weeks.

Gleets are ascribed by Berkeley Hill in a recent paper*—1st. To inflamed patches in the urethra, which can readily be detected by the endoscope, and by the "*bougie à boule*" (olivary, acorn, or bulbous bougie), and are best treated by injections by the attending surgeon of a solution of nitrate of silver, 10 to 20 grs. ad ℥i, to be repeated every three or four days. This treatment can be alternated with the use of soluble bougies (porte-remède Reynal). When these inflammatory patches degenerate into slight strictures, he divides with a modification of Otis's dilating urethrotome.

2d. To granulations, for which he uses a bougie previously dipped in melted wax, in which various medicaments have been suspended, *e.g.*, 5 to 10 grs. of the peroxide of mercury, or 5 grs. of the nitrate of silver to the ounce of wax. This failing, he employs a stronger injection of 30 to 40 grs. of nitrate of silver.

3d. To inflammation of the glands and follicles of the urethra.

4th. To prostatic complications, as from the extension of a gonorrhœal inflammation.

Improved methods for the treatment of stricture continue to excite much attention, the discussions taking place from time to time in the various societies and in journals showing much difference of opinion among those who have given most attention to the subject. According to Mr. Teevan,† the methods of treating strictures now in vogue are: (1) The expectant plan, *i.e.*, rest, warmth, and purging, only reserved at the present time as an aid in overcoming difficult strictures. (2) Continuous dilatation. (3) Gradual dilatation, in favor with most surgeons, and failures rare when soft French instruments are used. (4) Caustics, of service in "impassable" stricture, in order to open the way for the introduction of an instrument. (5) Electrolysis, still *sub judice*. (6) By sliding one instrument over another (Wakley), useful where false passages exist, or where the stricture is very tortuous. (7) Forcible dilatation (divulsion), a treatment rapidly falling into disuse. (8) Urethrotomy. The internal section he states is rapidly gaining in use in all parts of the world, though he believes subcutaneous urethrotomy to be the operation of the future. External urethrotomy he reserves for horny or resilient strictures complicated with perineal abscess or fistula.

Dr. F. N. Otis has shown that the normal urethra is wider than had been generally admitted before the results of his investigations were made known. According to him, a constant relation exists between the urethral calibre and the size of the penis. The proportion runs as follows: when the flaccid penis measures three inches in circumference, the size of the urethra will be thirty millimetres in circumference (that is, will just admit a sound No. 30, French scale) or more; when it is 3¼ inches it will be 32 or more; 3½ inches, 34; 3¾ inches, 36; 4 inches, 38; 4¼ to 4½ inches, 40 or more millimetres.

With these views of the normal size of the urethra, Dr. Otis maintains that any diminution in calibre, however slight, constitutes a stricture. Special instruments have been devised by Dr. Otis for measuring and exploring (the urethrameter), and for incising (the dilating urethrotome) the urethra, when it is judged necessary. In accordance with his views of calibre and of stricture, Dr. Otis found and incised in one case as many as fourteen strictures.

The views of Dr. Otis are not shared by all of his colleagues who have made the subject a special study, and they have repeatedly been criticised, as recently at a meeting of the Medical Society of the County of New York.

Among other points stated by Dr. Otis was the superiority of the "*bougie à boule*." In one of his cases a No. 17 bulbous sound was distinctly arrested at the points of stricture, while a No. 25 steel sound could be easily and freely passed into the bladder. This circumstance, which Dr. Otis interprets as an instance in favor of the bulbous sound as a stricture-finder, is believed by other authorities to indicate the "*bougie à boule*" as a deceptive urethral explorer, the use of which may lead to the supposition of the presence of a stricture when none exists.

On the same occasion, Dr. Bumstead, speaking first with reference to gleet and organic stricture, expressed a doubt whether the former invariably depended upon the latter. He advocated urethrotomy as being

* A Clinical Lecture on Gleets, Lancet, Feb. 13, 1875.
† Modern Methods of treating Stricture, Lancet, Jan. 9, 1875.

the best means of treatment for the cure of stricture, having discarded Holt's operation in its favor. He believed in cutting, up to 35 and 40 F. With respect to slitting up the meatus, he was of the belief that it was done altogether too much. He had, however, seen no evil results from the operation, and did not hesitate to resort to it if necessary to effect the passage of an instrument.

In the *Boston Medical and Surgical Journal*, November 30, 1876, Dr. Ed. T. Caswell gives notes of fifteen cases of stricture, of which twelve were gonorrhœal in origin. These were for the most part ruptured with Holt's dilator. In five cases perineal section was performed. Two deaths occurred, one of which was after the operation of rupture. In only six cases was the operation followed by a chill, and in three of the six there were no further indications of urethral fever. Dr. Caswell attributes this exemption to the almost uniform practice of administering a large dose of quinine and morphia as soon as the patient comes out of the ether, and to putting him to bed in blankets. As regards the different instruments, Dr. C. prefers Thomson's divulsor, and he sees no reason for preferring the slow and tedious process of gradual dilatation to the more rapid measures; and in all cases of traumatic stricture, or of stricture complicated with fistula, he believes the perineal section affords the most satisfactory results.

In the same number of the *Journal*, Dr. J. Foster Bush gives two cases of stricture, and remarks that these and many similar cases from hospital records show a point upon which he thinks sufficient stress is not laid, namely, that the operation for stricture does no good unless the after-treatment, the continual passage of a sound or bougie, is faithfully carried out; and that if we are not watchful in so doing the inflammatory action will again get the upper hand and will make the case as bad as before, if not worse. Dr. Otis does not partake of this view, we believe.

Mr. Annandale speaks favorably of the operation in stricture with multiple fistulæ, recommended by Mastin, of Mobile, of opening the urethra just anterior to the stricture by an external incision, and then introducing through this aperture a Maisonneuve's urethrotome to divide the stricture. Coleman, after passing a fine whalebone bougie through a tight stricture, inserts successively others alongside of the first on the "multiple wedge" principle, as he terms it. The method is an old one.

Finally, we may quote the remarks of Mr. Teevan in considering the question, "Is stricture of the urethra curable?" He says, "So far as I know, no surgeon has ever been able to place before the profession a dozen cases of stricture which he has cured by operation and which have been submitted to a crucial time test. The matter stands thus: whatever operation we may select for the relief of a stricture, we shall fail to cure the patient. Pathologically speaking, no stricture is curable, but practically nearly all strictures are remediable. Of all cases of operation for stricture which have come under my care, in which the operation was performed by myself or others, I have never yet met one in which, on examination with the *bougie à boule*, I did not detect some remains of the stricture, though years may have passed away after the operation." This was also, he says, the judgment of Delpech, and it has not yet been reversed.

Regarding the treatment of *chancroid*, very little has appeared recently. The use of iodoform, which for a while became quite prevalent, does not now seem to meet with the same favor as formerly, and, in general, it may be said that the most simple applications are usually employed. Simmons* has lately obtained excellent results in the treatment of phagedenic and gangrenous soft sores by continuous immersions of the affected parts in hot water. He cites the case of a woman with very extensively destructive and persistent chancroidal ulceration of the genitals as being cured by this means, after the usual routine measures had failed completely. He used an ordinary sitz-bath, with a large sponge for the woman to sit upon. The destructive processes were arrested, a healthy action established, and a cure resulted in two weeks. At first patients should be kept in the bath continuously, but in accordance with the improvement of the case immersion for every alternate hour only is necessary. Simmons thinks that the beneficial result is simply due to the removal and dilution of the discharge. Dr. R. W. Taylor has used this well-known means of treatment extensively with signal success in the bad class of cases met with in dis-

* On the treatment of phagedenic gangrenous venereal sores, Medical Record, September 11, 1875.

pensary practice, and he fully endorses Dr. Simmons's conclusions. He thinks, however, that Simmons's explanation is not entirely sufficient to account for the good effects of the procedure, which Dr. Taylor attributes not only to the removal and dilution of the secretion, but also to the decidedly stimulant effect of the heat and moisture by which the capillaries and larger vessels are noticeably contracted, or rather constringed. A. V. H.

CORRESPONDENCE.

LONDON LETTER.

THE man who told a cynical philosopher that "he must live," as some palliation for his conduct, was answered "that he did not see it." This answer might be regarded rather as practical than as indicative of sympathy, and probably the unfortunate individual thought himself hardly used. The *Medical Press and Circular* has recently been enacting the part of the cynical philosopher, and found itself in a court of law for an action for libel in consequence, and got the worst of it. However, the sum will neither tax the resources of the publisher nor add much to the yearly takings of the injured and now compensated practitioner. The matter possesses its chief interest from the fact that it has been the means of calling out an expression of professional opinion as to the original subject-matter of the action. Amidst the difficulties experienced in this world is the one of getting a start in life, a matter of much greater difficulty here than with you. In your big country a man who is good for anything and willing to work will not be long in finding a hole for which he is not altogether an unsuitable peg; but here the hole is much harder to find. This difficulty is felt very markedly by many young members of our profession, and many and numerous are the shifts they have had to resort to. The different ways of adding to the professional income adopted by the more highly educated aspirants to practice are well known; but for those who have entered upon their professional life with a limited amount of intellectual capital, these ways will not work. Consequently, they have recently adopted a plan which apparently is profitable and lucrative and yet has a *soupçon* of benevolence about it. Provident Dispensaries has been the favorite game of a large number of men. In reality these are often but private places of business, where the proprietor sits at certain hours and gives medical advice and medicine for a fixed sum. Usually the sum has been fixed at one shilling. A large number of these so-called Provident Dispensaries have been established, especially in poor neighborhoods, and have been well patronized by the poor. It so happens that the writer knows something of the working of these institutions. Meeting one day casually an old college acquaintance who had not been seen for many years, mutual inquiries were made as to what each was doing. Knowing that my old acquaintance was a man who studied the world and its ways, and yet had certain ways of his own which militated against his going in for high-class family practice, my curiosity was excited as to what scheme he had evolved. He had started a Provident Dispensary, and sat two hours every morning and an equal time every evening, and saw patients for a shilling each, to include advice and medicine. He described it as a paying kind of business, the shillings thus received forming the bulk of his income. He is a shrewd man, of great parts in his way, and assured me that too careful and too prolonged examination of a patient was regarded by his clients as indicating a want of capacity and consequently was injurious. They preferred a quick and prompt decision. The advantages of such prejudices to a man who is shrewd are obvious; and in this perhaps more than in any other department of the profession is required a competent knowledge of the world rather than extensive professional knowledge; though the first is essential to great success in every branch of it. Of course the connection so formed led to further practice, such as visits at home and midwifery. One or two accidental rencontres followed at intervals, and each time my quondam acquaintance looked sleeker and more prosperous. He informed me that he had opened a branch practice and kept three assistants, so that he did little work himself; and the last time I saw him he was driving a well-appointed phaeton, with a high-stepping horse in the shafts, and a man in livery behind him.

Of course this arrangement, by which patients get advice and medicine for the modest sum of one shilling, has increased greatly of late, since it has been found lucrative and easy in its working. So profitable, indeed, has this line of practice become, that a less sum than a shilling seemed feasible, and at least one qualified man has publicly announced by circular that at his dispensary advice and medicine may be procured for fourpence in the morning and sixpence in the evening, his tariff for home visits being arranged on a similar scale, so as to be within the reach of all but the absolutely destitute. This seemed to the editor of the *Press and Circular* to be carrying the thing a little too far, and consequently he gibbeted this enterprising gentleman in its columns, giving a fac-simile of his advertising sheet, and commenting thereupon. The editor gave it as his opinion that the advice would not be of a very high order nor the medicines very expensive which were furnished for fourpence, and indulged in

some reflections which so galled this follower of Æsculapius that he went to law and laid his damages at one thousand pounds. However, the damages were assessed at a sum nearer his own charges, and his feelings are, no doubt, soothed at the notion of having had his revenge on his critic. A good many of the profession have thought, however, that the *Press and Circular* has been discharging its duty to the profession by its conduct, and so an influential meeting has been held in London to express their sympathy and approval. The chair was taken by Dr. Quain, who commenced by pointing out the difference betwixt the proprietary dispensary, in which the owner tried to make as large a profit as possible out of his patients, and the provident dispensaries, which are under the direction of governors, and which are truly charitable institutions. The first resolution was as follows: "The principle of establishing proprietary dispensaries, under the guise of provident institutions, is in the highest degree objectionable, and ought to be discouraged, as fraught with danger to the public, and as tending to degrade the status of the profession." The second runs thus: "This meeting desires to express its approval of the policy of the conductors of the *Medical Press and Circular* in bringing the influence of their journal to bear against such institutions. It also considers it a matter for regret that a verdict should have been obtained against them in a court of law for a conscientious expression of opinion, and it desires to offer them its entire sympathy and support." The first resolution was proposed by Mr. W. Adams, and the second by Dr. Barnes; both were carried unanimously. A similar meeting has been held in Dublin, with like results. It has also been determined at both places to get up subscriptions to aid in defraying the expenses of the journal. I have not come across the gentleman with the phaeton and high-stepping horse since this meeting, and, not being acquainted with any one else in that line, I do not know what the owners of these provident dispensaries say; but the voice of the rest of the profession has been distinct enough on this subject. As to the profits actually made, my informant told me that he got his shilling "clear,"—all profit. This seemed absolutely incredible, as even the cheapest medicines cost something; but he demonstrated how it was done. A considerable number of his patients neglect to provide themselves with a bottle, and provision is made for these thoughtless individuals, who can procure from the dispenser a bottle for a penny. These pennies purchased the bottles and all the medicine prescribed. The arrangements for getting the maximum of medicine for the minimum of money showed considerable shrewdness; and sulphate of magnesia, sulphate of iron, and quassia form a compound of some potency, of which a great deal may be made by a very moderate outlay. Taking these facts into consideration, it becomes possible to see how even fourpences, if there are a sufficient number of them, may leave a margin on which an enterprising individual may contrive to do something more than subsist.

Of the graver operations which may any day and without previous warning present themselves before the general practitioner is that of *Cæsarean section*. A case has recently occurred in which mother and child were both saved; and as an equally successful case had some sixteen years ago fallen into the same hands, the details may be instructive as well as interesting to many of your readers, as Dr. Edmunds seems to have anticipated every difficulty and met successfully every complication. The patient was a lively, bright Alsatian, who had come to England to be confined, so that her child, if a boy, could never be compelled to fight against the French in any future Franco-Teutonic struggle. She had always had excellent health, except a little catamenial derangement. She had married, and she and her husband had experienced some obstruction in coitus, but not sufficient to cause them to consult a medical man. She had been in labor three days when Dr. Edmunds was called in, and had borne the ordeal famously. It was found that the pelvis was occupied by a large rounded tumor which sprang from the right ischium as its base. It had grown upwards and inwards, so as to displace the vagina. A chink less than an inch in width was all that was left betwixt the tumor and the left edge of the pelvic brim. The tissues of the pelvic organs were healthy and in no way involved in the tumor. All hope of effecting delivery by the natural passages had to be abandoned, and Cæsarean section was decided upon. It being Sunday evening, and other arrangements being impracticable, the patient was put into a cab and driven to the Temperance Hospital, to which institution Dr. Edmunds is senior physician. Being aided by several friends, the operator proceeded as follows: 1st. A terebinthinate enema was administered, to clear out the bowels and with the hope that the turpentine would act as a hæmostatic. 2d. Carbolic acid spray was projected into the atmosphere of the operating-room until the chamber smelt distinctly of it, while the temperature was raised to 80° Fahr. 3d. The most scrupulous care was taken to have no septic matter on the instruments, the whole of the attendants and the operating body were carefully disinfected, the hands scrupulously cleaned, and lastly washed in iodine water. 4th. The patient was seated nearly upright upon the edge of the operating-table, in order that the blood might flow out over the pubes instead of sinking down into the interstices of the intestines. Nurses held each lower limb steady, and a Windsor chair

was placed behind the patient's back, so that she was firmly secured. Chloroform was then administered. The bladder was emptied by means of a long male catheter. The incision was commenced at the umbilicus and continued downwards in the median line to within three inches and a half from the top of the symphysis pubis. It was then carried cautiously downwards for an inch or more, as the bladder was found to extend some four inches above the pelvic brim, and, filling with urine, prolapsed through the wound during the operation. It got so much in the way that a catheter was passed and kept in situ. In consequence of the position of the bladder the incision was carried upwards beyond the umbilicus. The whole incision was six inches in length.

The uterus was seen lying diagonally across the abdomen, its fibres distinct through the peritoneum, and its walls tensely stretched upon its contents, the waters having escaped at an early period. The fibres retracted forcibly on being severed by the knife. The shoulder of the infant appeared in the cut, and the rest of the incision was completed on a director. The fœtus was seized by the head and withdrawn, the uterus closing upon itself very promptly. The child being in a state of suspended animation, the placenta was extracted and laid beside it, while Dr. Routh proceeded to restore it. After the withdrawal of the placenta the uterus contracted and expelled a few ounces of blood, which flowed safely over the pubis. The fingers of the right hand were inserted to extract some fibrinous clot, after which the uterus was gently kneaded to induce it to contract firmly. Rounded fragments of ice were dropped into the uterus from time to time, and brought in contact with the whole surface. The uterus contracted perfectly, each contraction squeezing out a little fluid, which at first was pure blood, and afterwards only red serum. The wall of the contracted uterus was about three-eighths of an inch in thickness. Its internal surface became coated with felted fibrin, and the red serum which followed at each contraction left plugs of fibrin in the uterine sinuses. After three-quarters of an hour, it was thought safe to proceed to sew up the incision. Two silver-wire sutures were passed through the abdominal walls, closing the lower portion of the incision, after which the upper portion was closed by four similar sutures. These sutures were carried through the whole thickness of the abdominal wall. They included two-thirds of an inch of skin and one-third of an inch of peritoneum. Just before closing the abdomen an œsophageal tube was passed into the uterus and out through the vulva to make sure of a passage for the lochia.

Having tightened and fastened the sutures, the surface of the abdomen was sponged, and then tapes of adhesive plaster were fixed betwixt the sutures, and the edges of the wound brought into exact apposition. A thick sheet of carbolized wool was laid over the abdomen, and finally a five-inch flannel bandage was rolled around the body so as to take off any tension upon the tapes and sutures, and the operation was complete. In its contractions the uterus seemed as if about to turn itself inside out. The loss of blood was about ten ounces. Very little chloroform was used, and, after the removal of the child, the mother sank into a natural sleep, like Damiens in the intervals of the rack. In addition to the turpentine enema, the patient had internally one hundred drops of secale cornutum in divided doses, and sixty of oil of turpentine, shaken up in milk, in two doses. When the operators left, the patient was sleeping calmly, the pulse and respiration being almost normal. The patient was fed on milk and water and oatmeal gruel sweetened, and had neither physic nor alcohol prescribed; indeed, both were forbidden. A hyoscyamus draught was given on the third day for some flatulent pain, and a dose of castor oil on the fifteenth day to open the bowels. The after-history of the case is entirely negative, the patient recovering without one single evil symptom, and the baby being equally fortunate. Mother and child were both shown to the medical society before the paper was read.

A long and adjourned discussion followed, in which the subject of suturing the uterus was thoroughly discussed. In both of his cases Dr. Edmunds left the uterus unsutured. The case is one of great interest, and exhibited in a high degree the good results of combined skill with an excellent patient. Dr. Edmunds was highly and deservedly complimented on his successful results. The case, of course, is a very fortunate one for the Temperance Hospital, and a great feather in its cap. But, after all, most of the merit lies in the fine physique and high courage of the patient, who slept through the greater portion of the operation without chloroform, and never needed a stimulant.

An equally successful case of Cæsarean section has occurred in the hands of Dr. Llewelyn Thomas, also of London; but the details of this case have not yet been published.

Dr. Barnes recently delivered an able address before the Midland Medical Society at Birmingham, on pregnancy regarded as an experiment illustrating general pathology. In contrasting the uræmia with convulsions of pregnancy with the condition of chronic Bright's disease he said, "In both, there is highly increased vascular tension; but in gestation this is rapidly induced. In gestation, the mobility—if we may use the metaphor—of the sympathetic, cerebral, and spinal systems is enormously exalted. The sympathetic nerves presiding over the dilatation and contraction of the blood-vessels generally seem also to be the agents which determine those sudden fluxes of blood to particular regions or struc-

tures, of which we see so many striking examples in the female economy. For example, we have the familiar rush to the capillaries of the face and neck under the emotion which causes blushing, the sudden rush to the breasts and rapid secretion of milk under the emotion of maternal feeling, the sudden rush of blood to the uterus often revealed in flooding under various emotions of joy or fear." He also held that the diarrhœa, the vomiting, and the profuse salivation often found during gestation were at times not deleterious, but really useful in lowering and relieving the high vascular tension. He further pointed out the circumstances under which abortion might occur as a beneficial action,—that it might be salutary in design and not seldom in effect. It terminates an experiment which is found to be dangerous to the economy. Further, "it may be affirmed that whereas abortion is the natural mode of relief when the resisting and accommodating forces are overpowered, these nervous explosions in vomitings, sneezings, twitchings are in the majority of cases means of discharge of excessive nervous energy, by which abortion is averted." As an illustration of the effects produced by pregnancy upon the nervous system, he quoted the case of a lady—the wife of a medical friend, curious to say—who had been insane before marriage. "The mental disorder was suspended during two pregnancies, and recurred afterwards. May we explain this by supposing that the function of pregnancy, demanding special nerve-force, diverted to this physiological channel that which would otherwise have found a pathological expression?" he inquires. Finally, he regards pregnancy as a great test of bodily soundness, and "a more cruciferous experiment than was ever devised in the laboratory."

Mr. James Lane is delivering the Harveian lectures this year, the subject being syphilis. Mr. Lane is thoroughly conversant with his subject, and his first lecture was listened to with great attention, while his second lecture promises to be more interesting still. In reviewing the circumstances under which John Hunter inoculated himself with syphilis while using gonorrhœal virus,—an unfortunate accident which originated a wrong hypothesis as to the unity of gonorrhœal and syphilitic poisons,—Mr. Lane gave it as his opinion that the infection was not due to a urethral chancre, but that the patient was a syphilitic individual. Mr. Hutchinson recently pointed out how a discharge from a syphilitic individual might contain the specific virus. He likened it to poppy-seed among corn. If the corn contained the seed, poppies would grow; if not, there would be no poppies. So in a syphilitic person the discharge might be free from the syphilitic virus, and then no syphilis would follow; but if the virus did happen to be contained or borne in the discharge, then syphilis would be induced. So Mr. Lane thought that Hunter's inoculation was due to the gonorrhœal discharge being from a person who had previously had syphilis. Further, he thought, and the suggestion is a most important one, that Hunter's comparatively early death from arterial degeneration was largely due to this in every way unfortunate experiment. The now well-known tendency for arterial degeneration to be induced if not set up actually by syphilis renders it exceedingly probable that in Hunter's case such was actually the fact; and had this experiment been performed with the gonorrhœal secretion of a non-syphilized individual, Hunter might have been spared many years longer to labor and investigate, and a most erroneous theory, long accepted, been avoided.

The failure of the sledge-parties of the Arctic expedition, coincidently with a most inadequate, indeed practically useless, supply of lime-juice, is creating much attention. The profession is pushing the inquiry, while the official mind is exercised in parrying their questions and raking up other explanations; but it will probably turn out that for some unaccountable reason the positive instructions about the supply of lime-juice had been disregarded in the furnishing of the sledges, and that scurvy had followed the unfortunate omission.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, NOVEMBER 23, 1876.

The PRESIDENT, DR. H. LENOX HODGE, in the chair.

Report of the Special Committee appointed to examine the extra-uterine pregnancy exhibited by Dr. F. P. Henry on October 12, 1876.

THE committee appointed to examine the "specimens illustrating an extra-uterine pregnancy" presented to the Society at a recent meeting, by Dr. F. P. Henry, submit the following report. The fœtation is of the abdominal variety, the ovule having escaped from the ovary so as to lodge upon the posterior layer of the broad ligament and there develop. The failure of the ovule to enter the Fallopian tube was apparently due to adhesions between the fimbriated extremity and the ovary. The sac was formed from the serous membrane by proliferation of its cells and exudation of fibrin, as in an ordinary adhesive inflammation of this tissue. The vessels developed in the pseudo-membrane have united with those of the broad ligament, from which the placenta was supplied with blood, as can now be readily demonstrated. The right ovary contains a well-marked corpus luteum, situated upon its inferior border and near the uterine extremity of the gland. The ovule, after es-

caping from the ovary, must have been moved to a position external to its point of escape, perhaps from some visceral motion which, owing to the adhesions mentioned, has not been antagonized by the normal serous current whose function it is to direct the ovule towards the fimbriated extremity of the tube. The adhesion may have been sufficient to cause the ovule to deviate from the normal course and yet have permitted the passage of the spermatic fluid, or, as experiments upon the lower animals allow us to conjecture, fecundation may have occurred through the opposite tube.

The fimbriated extremity of the left tube was contracted so as barely to admit a No. 3 (French) catheter.

A section of the broad ligament exhibits numerous large vascular lumina readily admitting an ordinary director, which can be pushed onward through the pedicle of the sac as far as the site of the placenta.

The uterus is enlarged to about the size of the pregnant organ at three months; the cervix is elongated, and the coarsely granular mucous membrane shows decided traces of a decidua. The umbilical cord does not present the usual spiral appearance, which is probably due to the want of vascular injection. This may be brought forward as an additional argument that the fœtus was dead some time before the autopsy.

In order to determine the structure of the sac, sections were made from different points of its circumference and examined microscopically. Those farthest removed from the pedicle were composed of connective tissue solely, while in one cut from the pedicle, about two inches from the ovary, spindle cells were observed which the committee were unable to distinguish from those of organic muscle.

F. P. HENRY,
MORRIS LONGSTRETH,
E. O. SHAKESPEARE,
J. EWING MEARS,
CHAS. B. NANCREDE.

Report of Dr. Shakespeare on the histological appearances.

The small pieces of the fœtal sac which were referred to me for further minute examination included portions of tissue from the pedicle, portions from a position about an inch removed from the pedicle and to which the placenta had been attached, and portions from that part of the sac most remote from the pedicle. A slice from the uterine wall also accompanied the other pieces.

The tissue from each of the above-named localities was variously treated: some macerated and teased, and some hardened and cut into thin sections. Sections were made horizontal to the surface, as well as sections in several directions perpendicular to that surface. A few sections of each were mounted, unstained, in balsam, for polariscopic examination; others were stained and mounted in glycerin or syrup.

Stained sections of the portions most remote from the pedicle presented the following appearances:

The vertical sections, no matter in what direction made, all showed similar pictures. The most of the ground-substance of these cuts consisted of long, slightly undulating, and nearly parallel bundles of fibrous tissue applied side to side so closely that the interfibrillar spaces, where they existed at all, were narrower and linear in shape. The only cellular appearance that could be discerned was solely confined to these spaces. The spaces were often completely filled with accumulations of cell-like bodies, all seen more or less in profile, and in this view mostly spindle-shaped, although not a few possessed circular outlines. Here and there in a field could be seen linear spaces not so crowded with these bodies. In these the cells were arranged end to end in two separate rows, a small very narrow free space existing between the two rows. On the fibrillar side, these rows of cell-like bodies were closely applied to the fibrous bundles. After the eye became familiar with this arrangement, the same general order could be traced without much difficulty in the previously mentioned more crowded spaces.

The horizontal section showed, in points where the cut was extremely thin, the beforementioned generally parallel course of fibrous bundles.

Here, however, instead of the presence of the cell-like accumulations between each bundle, as before, they were often more prominent in spaces formed by the slight separation of wider fibrous bands, consisting of a number of the smaller bundles placed side by side. Moreover, the cell-like bodies were more heterogeneous in form, though they appeared in the vertical section; many distinctly round or oval cells being observed, and the spindle outline being by no means so general.

When a nucleus could be seen it was most frequently round or only slightly oval. No distinctly oval-shaped nucleus could be discovered, nor any oval one which decidedly approached the former shape.

Thicker portions of these horizontal sections revealed an apparent lamellar arrangement of the fibrous bundles, with the direction of fibres in adjoining lamellæ at right angles to each other. The majority of the tissue was, in accordance with the suggestion, easily separated into thin plates. The appearance of the vertical section also supported the conclusion as to the lamellar arrangement. Large-sized capillary vessels, whose walls were in a state of irritation, were observed to course occasionally between the different lamellæ. The unstained sections, when placed between crossed Nichols prisms, were found to transmit light in the following portions. The fibrous bundles became luminous where their axes formed an angle with the axes of the prisms; the greatest intensity being reached when that angle became

equal to 45°. In no position could the cells in the intercellular spaces be made to polarize.

The conclusion arrived at respecting the nature of this portion of the sac, and strengthened by examination of teased portions, was that it presented the appearance of that form of irritated connective tissue of which the sclera may be considered a type, and that probably but few, if any, muscle-cells were present in it.

The same general description pretty well expresses the appearances found in the tissue of the sac one inch from the pedicle. The vessels were found in the same position relative to the lamellæ, but, instead of being capillary, arteries and veins of considerable size were numerous. Besides the cells previously described, there were many large spindle-cells which it was impossible to say were not muscular. These were sometimes arranged in small bundles, but were most frequently isolated; their nuclei, however, when seen were oval. The sections from the pedicle exhibited in larger numbers the spindle-cells last described, and showed less of the fibrous and more of the vascular structure than did the portions previously mentioned.

The conclusion reached from these examinations may be stated as follows: that the great mass of the sac is to be considered as fibrous connective tissue; that in the pedicle and in that portion of the sac an inch removed from the former were also to be found muscle-cells. E. O. SHAKESPEARE.

Patho-anatomy of the nervous system; a verbal communication by Dr. HARRISON ALLEN. Published in the *Medical Times* for December 9, 1876.

Dr. HODGE remarked that Dr. Allen had not made any allusion to the communication of the fourth ventricle with the arachnoid space. He asked whether this would not relieve any tendency to bulging which might exist in the membrane closing the latter ventricle.

Dr. ALLEN replied that he had not been unmindful of this communication. It is a question to what degree the passage is enabled to carry off the cerebral fluid. If it were at all times competent, no retention could occur. It is probable that long-sustained downward pressure from the region of the occipital lobe might close the passage between the third and fourth ventricles, or, as Luschka has suggested, the boundaries of the opening between the anterior border of the tentorium and the base of the skull might, under favoring conditions, exert pressure upon the return flow of blood from the middle of the cerebrum, and thereby induce dropsical effusions in the ventricles in the same manner as pressure on the portal vein causes abdominal dropsy.

Dr. F. P. HENRY desired to know of Dr. Allen whether the numerous cases of paralysis of the body on the same side as the brain-lesion could be explained by any known anatomical facts. More than a hundred such cases have been collected by Brown-Séquard, who explains them by the theory of inhibitory action, according to which the irritation may paralyze either a contiguous or a distant centre, the parts in direct nervous continuity with the lesion not being necessarily affected. According to this view, a lesion may in one case produce paralysis on the same side; in another, a precisely similar lesion in all respects may produce paralysis on the opposite side. He would also inquire what preliminary process the brain is subjected to in order to render these dissections possible.

Dr. ALLEN said in reply to the first question, that it has been shown by Benedict that the conditions of transmission are often influenced by the exciting cause of the part in communication with it. In irritation of the cerebellum sometimes there are no evidences of irritation, while in other cases the same cause will produce paralysis.

Sometimes we can explain these phenomena by anatomical structure, at others not: the relation between the quadrigeminal mass and the cerebellum can be explained by the peripheral tract which unites them. We can see how we can influence the whole motor tract which underlies the quadrigeminal mass.

Whenever we do not have all the symptoms accounted for by the site of the lesion, we must study all the correlated conditions of the part.

In answer to Dr. Henry's second question, as to the methods of preparation of the brain, he could only say that they are very intricate. They are those of Meynert, and the only knowledge he had of them was derived from a recent verbal communication before the Boston Society for Medical Improvement, which gave the details of the process. The essential parts consist in hardening by alcohol and chromic acid.

Dr. C. B. NANCREDE asked Dr. Allen whether he understood him to say that Mr. Callender had stated that a lesion in one situation excited morbid action in another, and this in a third, by means of the decussating fibres.

Dr. ALLEN replied that this was true, but that it was not Callender who had made the statement, but Benedict.

Dr. NANCREDE thought that, this being the case,—viz., that a lesion of a portion of the brain did not necessarily affect the parts supplied by nerves from it, but did affect parts having another nerve-centre,—the explanation was very easy. For instance, take an abscess in the *left* side of the brain; this does not produce paralysis in the parts supplied by nerves from the centre implicated, possibly on account of its very slow growth; but sets up a morbid action, say in the corpora quadrigemina. This centre responds to the irritation, but, instead of producing some affection of vision, by commissural fibres it sets up an inhibitory action in the corpus striatum of the right side. Then, of course, on account of the

decussation of the anterior pyramids of the medulla oblongata, the paralysis is on the *left* side, or that of the real lesion.

From what we know of the *macroscopic* commissures of the brain in most cases, such explanations will prove easy; but when the *microscopic* ones are thoroughly understood there will probably be no difficulty in any case. By referring to what we know of so-called reflex paralysis, the explanation is rendered still more easy. In such cases we know that a diseased condition of the bladder or of some other organ will often set up an inhibitory influence in the spinal cord, which will result in paralysis of various parts. Whether this influence be vascular or not he does not pretend to determine. Now, in place of the abscess in the supposed case, substitute a diseased bladder, and we have the whole pathology of these cases of brain-lesion with paralysis in the side of lesion. He does not see, however, the necessity of the intermediate centre, as in many parts of the brain the impression can be conveyed without necessarily passing to any such ganglionic mass.

Obstruction of the intestines, due to contraction caused by great accumulation of fat around the descending colon; peritonitis.

Dr. H. LENOX HODGE reported the results of a post-mortem examination made upon a woman who died from obstruction of the intestines and peritonitis.

She was a mulatto, about 58 years of age. Her general health had been good, although she was exceedingly fat. About three weeks before her death she had fallen heavily from a chair, striking her abdomen. During the last two weeks she had obstinate constipation, and bilious and stercoraceous vomiting. The abdomen was tympanitic, but not greatly distended. Injections given with Davidson's syringe came away quickly, and even when given in large quantities returned perfectly clear, without being discolored with fæces. A large tube could be passed high up the rectum, and when the injection was thrown up this tube it brought away small quantities of fecal matter, and the fluid came away discolored.

The post-mortem examination was made thirty-six hours after death.

The abdominal walls were very thick and fat.

The omentum was exceedingly thick, being loaded with fat.

There was extensive peritonitis over the region of the small and large intestines. There were bands of lymph binding together the folds of the small intestines. The most severe inflammation was at the beginning of the jejunum. The coats of the intestine were there of a chocolate color.

The ascending and transverse colon were smaller than usual, but presented the normal sacculated appearance. Their epiploic appendages were, however, enormous. The descending colon was apparently buried in the fat of the epiploic appendages. It could not be distinguished except by section. A section was made just above the sigmoid flexure; the coats were found very thin, and the calibre of the tube was so small as scarcely to admit the forefinger. Below this point the intestine was empty; above it, a hard mass of fæces about the size of a walnut filled the colon, and could only be pressed out by force. The muscular power of the intestines could not have moved this mass any further in the narrow canal. The injections had washed out the bowel below, but had failed to make any impression on this mass.

The rectum was also small, but everywhere could receive the forefinger.

The walls of the uterus were filled with subserous and sub-mucous fibrous tumors. It occupied a large portion of the pelvis, but there was room enough for the bladder and rectum without any pressure being made upon them.

The gall-bladder was filled with gall-stones.

Dr. ALLEN asked Dr. Hodge whether the fat was more abundant on the descending colon, which is more at rest than the ascending gut, and therefore more disposed to the accumulation of fat.

Dr. HODGE replied that the fat was chiefly on the descending colon and a part of the transverse gut; that the ascending colon was comparatively normal.

REVIEWS AND BOOK NOTICES.

MODERN THERAPEUTICS. By GEORGE H. NAPHEYS. Fourth edition, rewritten and enlarged. Philadelphia, D. G. Brinton, 115 South Seventh Street.

The present book has been so long before the public that it seems almost superfluous to state that in it diseases are arranged as headings, under each of which are given formulæ and short sketches of treatment as commended by various physicians, ranging in authority from the highest to the lowest rank. With this in his pocket, all the doctor has to do is to name the disease of his patient, open his book at the proper page, shut his eyes, put his finger on the page—and take the prescription it hits. This prescription may be of one character, or it may be of precisely the opposite, for, seemingly without rhyme or reason, remedies the most antagonistic in some cases lie side by side. It will be seen that the book is especially fit for a "family practice," enabling the materfamilias to rival her homœopathic sister across the street in amateur trifling with life.

The work has had a large sale, but we trust, for the credit of the American profession, that it is the "family practice" side of it which has secured success, and that it is the laity who

have so freely purchased it. The apotheosis of empiricism, the glorification and incarnation of routinism, it must, however, secure a certain measure of success among the less educated members of the profession.

We do not deny a certain amount of usefulness in such a work as the present, but it does seem that in so far as the methods of the older formulary are departed from, the tendencies of this class of works become most dangerous.

Whatever may be thought in regard to the scope of the work, there can be no difference of opinion as to the judgment which ought to be pronounced upon an editor who misquotes or misrepresents those whose views he undertakes to set forth. As references are exceptionally given, it would be preposterous to expect a reviewer to go through the book, then hunt up the papers and volumes from which it has been drawn, and finally compare the original with the portrait.

We read on p. 401, in brackets, and probably added by the editor, "Prof. H. C. Wood, of Philadelphia, questions the great susceptibility of infants to opium. He has used that drug with great freedom in infantile therapeutics, and without injury." Turning to H. C. Wood's Therapeutics, second edition, p. 216, we read, "Children always bear opium very badly, and to them only the weaker preparations should be given."

How far we are justified in considering this a sample we do not pretend to say. The matter is, however, one of the gravest importance, and the old proverb says, "*Ex uno omnes disce.*"

PUBLIC HEALTH REPORTS AND PAPERS PRESENTED AT THE MEETINGS OF THE AMERICAN HEALTH ASSOCIATION IN THE YEARS 1874-75. New York, Hurd & Houghton, 1876.

This is a large, handsome volume of five hundred and fifty pages, and very varied contents, as set forth in between forty and fifty papers. The subjects of the memoirs range very widely in the field of hygiene, and are many of great practical importance, but we fail to find among them a single essay based upon original and extensive experimentation: as everywhere else in American medicine, the applications of science rather than the science itself receive attention. As a practical book of this character the volume is one which needs no apology; and when we consider the almost complete neglect of hygiene by our government, and that a career as a hygienist is almost impossible in this country, the work here accomplished is astounding. It is certainly remarkable that, with no possible individual interests to serve, and in the face of so much indifference if not of actual opposition, our American physicians have accomplished so much. To the promoters and supporters of the American Health Association the country owes a debt of gratitude which will perhaps never be recognized, although we doubt not in the future years will come to these individuals the pleasurable consciousness of successful effort and of a great benevolence accomplished.

REPORT OF THE SURGEON-GENERAL'S OFFICE.

The annual report of the Surgeon-General for 1876 contains the usual records of casualties and results, of expenses incurred, etc., etc., but not much of general interest which has not already been laid before our readers. We learn from it that the number of artificial limbs and apparatus allowed during the year, in kind, was 545, and by commutation 3350, showing that the great popularity of commutation prevails in regard to limbs as well as quarters, rations, forage, etc. To the national library were added during the year two thousand volumes. The photographers appear to have had a successful year, adding eight hundred and ten negatives to their store. We are very glad to see that the Surgeon-General "strongly recommends" Congress to authorize the printing of the subject catalogue.

GLEANINGS FROM EXCHANGES.

DIAGNOSIS OF INTESTINAL OBSTRUCTION (*British Medical Journal*, Nov. 18, 1876).—In a communication to the Medico-Chirurgical Society of Glasgow, Professor G. H. B. Macleod classes the causes of intestinal obstruction as follows: those existing within the bowel itself; those existing in the wall of the gut; those seated in surrounding parts. Among the first are included—(a) foreign bodies which have been swallowed, have formed within the bowel, or been inserted by the anus; (b) intussusception or invagination, in which one portion of the bowel passes within another; (c) incarceration of the bowel in old irreducible herniary protrusions; (d) growths, simple or malignant, protruding into the intestinal canal. Among causes seated in the wall of the gut may be mentioned—(a) spasm, such as may arise in enteritis and lead-colic; (b) paralysis of the bowel, as in violent catarrhal inflammations and after herniotomy; (c) stricture due to cicatrization after ulceration or to malignant disease of the bowel; (d) volvulus or twist in the bowel; (e) hypertrophy of one of the valvulæ conniventes. Among causes lying outside of the bowel may be mentioned—(a) adhesions of the bowel to some surrounding part, or to another coil of bowel; (b) bands or diverticula constricting the bowel; (c) tears or apertures in the omentum, mesentery, or peritoneum, enclosing a coil of bowel; (d) internal hernia, as diaphragmatic, obturator, ischiatic, into the foramen of Winslow, etc.; (e) enlargements or displacements of the uterus, ovary, liver, pancreas, spleen, kidney, etc.; (f) tumors, mesenteric, ovarian, or other.

Abscesses connected with dead bone or that of perityphlitis. The following occasion urgent early effects: invagination, spasm, volvulus, loops, and internal hernia, and in many cases adhesions and bands; on the other hand, the signs of obstruction come on slowly when it is occasioned by foreign bodies, incarceration, growths within or without the canal, paralysis, stricture, or the pressure of neighboring tumors or organs.

The signs by which intestinal obstruction makes itself known are—(1) constipation (which, in connection with stercoraceous vomiting, is one of the most characteristic signs of obstruction of the bowel); (2) pain, ranging from a feeling of weight to violent suffering; (3) vomiting, occurring early if the obstruction is high, late if it is low down the bowel,—at first bilious, then *feculent;* even when the obstruction is in the small intestine, the ejecta come to have the smell of fæces; (4) swelling, confined to a portion of the abdomen or affecting the whole cavity,—an important aid often in fixing upon the affected part; (5) movements of the bowel accompanied by violent gurgling are observed before the gut becomes paralyzed by distention in the obstructions of the lower gut; (6) hiccough is frequently a distressing condition; in obstructions high up it may appear very violent; (7) in sudden acute attacks involving the upper gut, the secretion of urine may be decreased or even suppressed, but in chronic obstruction low down in the canal a reverse effect may be produced. To these symptoms must be added the facies Hippocratica, dyspnœa, peritonitis, etc. Fatal obstruction rarely occurs from foreign bodies swallowed, and the symptoms which their presence occasion are very uncertain and inconstant. In obstruction from gall-stones, the history of jaundice, sudden attacks of pain, etc., will help in making the diagnosis, while rectal examination with the finger, bougie, or water injection will ordinarily determine the presence of hardened fæces. Invagination, the cause of nearly one-half the cases of obstruction, and particularly common among infants and young children, is recognized by the age of the patient, previous history of some irritability of the bowels, frequent desire to go to stool, with straining when there; the discharge of blood; much restlessness, with pain in paroxysms; thirst, and vomiting. A sausage-like tumor is often observed lying across the belly. Stricture of the bowel gives a history of antecedent inflammation, as ulceration or intussusception. Twists or strangulation by rotation of the bowel produce effects similar to internal hernia.

Professor Macleod gives also distinguishing marks for recognizing obstruction from the various less frequent causes, and adds a number of other cases illustrative of the various heads.

Idiopathic Glossitis.—Several cases of this affection have recently been reported in the journals, the general symptoms of which have been in most respects similar. In the *Medical Press and Circular* for November 22, 1876, Mr. James P. Byrne reports a case in which abscess of the root of the tongue occurred as a complication. The patient, a married woman of somewhat impaired constitution, presented a swelling of the tongue, not excessive, which had appeared several days previously. The throat, which was very hard and œdematous, was poulticed externally, while hot water was held in the mouth as long as it could be borne. The tongue, however, continued to swell rapidly, operative interference became necessary, and two days later a couple of *long* and deep parallel incisions were made on either side of the raphé as far back as possible. Immediate but only temporary relief was expérienced; within the next few days the tongue once more became alarmingly swollen, and a peculiar hard ridge could be observed on the left side of the raphé, which gave, however, no sense of fluctuation. Suspecting a deep-seated abscess, a Syme's knife was passed far back and drawn forward, with the effect of liberating a quantity of fetid pus and relieving the patient permanently.

Easy Method of Removing Adherent Mucus from the Os Uteri.—Professor Pajot recommends the following as the easiest method of removing the viscid, tenacious mucus, characteristic of certain forms of catarrh, from the uterine orifice. Dip a ball of charpie into the yolk of a fresh, raw egg, apply it for a few seconds to the mucus, and then inject one or two syringefuls of water into the speculum, continuing meanwhile to apply the charpie gently to the cervix. Now let the water flow out, and dry the cervix, when it will be found to be perfectly cleansed of all secretion.

To prevent the condensation of vapor on laryngeal mirrors, it is only necessary to pass a cloth saturated with glycerin over the surface of the glass. The vapor contained in the expired air is dissolved in the glycerin, and the mirror remains clear.—*Lyon Médical.*

A New Mode of Generating Sulphurous Acid for Use as a Disinfectant (*Lancet*, November 18, 1876).—Mr. Thomas W. Keates suggests the use of bisulphide of carbon as a material from which to evolve sulphurous acid. This substance is, as is known, quite volatile and inflammable, so that it will burn like spirits of wine. It contains a large proportion (84 per cent.) of sulphur, and when mixed with kerosene and burned in an ordinary lamp will evolve such an amount of sulphurous acid vapor as to disinfect a moderate apartment very rapidly. The method of employing the lamp is described by Mr. Keates, who has devised some peculiar sort of lamp for using the bisulphide of carbon more advantageously. An ordinary lamp is all that is necessary. It should be said that although

the smell of bisulphide of carbon when impure is most nauseating, yet a pure article is now manufactured, having little or no odor.

Itinerant Pile-Surgeons and their Secret.—Dr. E. Andrews relates, in the Chicago *Medical Journal and Examiner*, October, 1876, that the travelling "pile-doctors" use the following preparation hypodermically:

℞ Crystallized carbolic acid, ʒiii;
Pure oil (some fixed oil), fʒi.
Mix.

Some use equal parts of the acid and oil; others substitute glycerin for the oil; and one, at least, has tried a preparation of ergot. When the piles are internal and not readily brought down, a Sims speculum is used to uncover them. The operator usually takes but one pile at a time, always selecting the uppermost first, and injects into its interior from four to six drops of the solution. This causes the tumor to turn white, and probably coagulates the blood in its vessels, and results in its shrinking away without any inflammation severe enough to prevent the patient attending to ordinary business. When necessary, the operation is repeated. Strong solutions of carbolic acid produce an anæsthetic effect, so the claim that the method is "painless" is usually considered reasonable, although great irritation and inflammation follow in some cases. The absolute safety of the plan is not yet demonstrated. Dr. Andrews thinks that perhaps cases of embolism of some branch of the portal vein, and consequent serious hepatic complications, may possibly result.

Expectant Treatment of Chorea (*Lancet*, November 28, 1876).—Drs. Gray and Tuckwell have added, to a first series of cases of chorea published five years ago, a second series, bringing the number up to a total of thirty-eight in which the expectant plan was followed. The patients were given the best diet, and took in addition nothing more than an occasional dose of caraway water or sugared water by way of placebo.

The average duration of the first series of cases was eleven weeks, of the second series nine weeks, a result which compares favorably with the results of cases treated by arsenic (ten to eleven weeks), or of other forms of treatment as tabulated by Hillier and Sée, "about ten weeks," according to the first writer, "sixty-nine days" according to the latter. "An isolated ward; a good nurse; a large crib, well padded round and walled in with pillows, plenty of nutritious food, without stimulants,—on these," say Drs. Gray and Tuckwell, "we shall feel inclined to rely in the treatment of severe chorea, till we obtain more conclusive evidence than has yet been adduced that the disease can in the slightest degree be favorably influenced by any medicine" as yet discovered.

MISCELLANY.

Tests for Bile-Pigment.—At a recent meeting of the Irish College of Physicians, Dr. W. G. Smith showed that the principle on which all the bile-tests depended was the conversion of bilirubin into biliverdin by oxidation,—a green coloration being produced by the reactions. Although the nitric acid test was depended upon in delicate physiological investigations, it was desirable to have at command some supplementary tests which were easy of execution and free from fallacy. Four test-liquids seemed to answer to these indications, viz., tincture of iodine, ferric chloride, peroxide of hydrogen, and the acetic or phosphoric solution of peroxide of lead. The two latter liquids possessed the advantage of being colorless; and the phospho-plumbic solution especially promised well as a delicate reagent. Peroxide of lead had been utilized in experiments on bile (Maly); but peroxide of hydrogen and ferric chloride had not, so far as Dr. Smith knew, been used by other experimenters. With a fresh supply of material, he purposed to study more closely the action of the iron, lead, and hydrogen peroxide; but, as the clinical experiments had been chiefly conducted with the iodine test, he, in conclusion, mentioned the reasons which seemed to him to recommend tincture of iodine to the notice of those interested in such matters. 1. A single reagent, always easy to obtain, is alone necessary; 2. The test-liquid is not corrosive; 3. A single definite color is produced with the bile-pigment; 4. The color is sufficiently persistent; 5. From the less powerful chemical energy of the reagent, as compared with that of nitric acid, there is a diminished liability to error; 6. No other pigment than bile will yield the characteristic green color; 7. The test fully equals in delicacy, possibly surpasses, the nitric acid test. The test is applied by putting about a drachm of urine in a glass test-tube and allowing one or two drops of tincture of iodine to trickle down the side of the tube so as gently to touch the surface of the urine. A stratum of bright emerald-green coloration forms at the junction of the fluids. Dr. Emerson Reynolds concurred with Dr. Smith as to the doubtful value of the nitric acid test. He had come to the conclusion that any oxidizing agent would suffice for the conversion of the bilirubin, or brownish coloring-matter, into biliverdin, or greenish coloring-matter, as the change seemed to consist in the addition of a molecule of water and an atom of oxygen to the brown-colored substance. Iodine, from its deep color, he rather objected to. Ferric chloride was reduced by too many other substances to be of value. The phosphoric solution of peroxide of lead acted with extreme facility. Ozonized ether also acted well. Dr. Finny and Dr. Foot had both experience of the successful use of the iodine test. Dr. Foot further suggested that the

test might aid in distinguishing the etiology of hæmatogenous and of hepatogenous jaundice.

DRY PREPARATIONS.—For preparing rapidly bones and ligaments for museum purposes, Dr. L. Frederick (*Bulletin de l'Acad. Royale de Belgique*, June, 1876) recommends that after the soft parts have been taken away, except the ligaments, the preparation be washed in water, dehydrated by alcohol, and then plunged into essence of turpentine. After two or three days' maceration in this fluid, the skeleton is placed in the position in which it is designed to keep it, and dried in the air. In drying, the bones and ligaments become beautifully white, and the whiteness increases as time passes. The same process gives less satisfactory results for muscles. For a parenchymatous organ, on removing it from the turpentine bath, Dr. Frederick plunges it into melted wax or paraffin during half an hour to two hours, till the bubbles of turpentine have ceased to pass off. When withdrawn and cooled, the piece resembles a wax model, but is far superior in its minor details: the color of the organ persists.—*British Medical Journal.*

A HOMŒOPATHIC AUDIENCE.—"A Chair of Homœopathy" was inaugurated in the University of Buda-Pest in October, 1875. Six persons, according to the *Wiener Allgemeine Med. Zeitung*, constituted the audience; but before the course was concluded they had all deserted the benches.—*British Med. Jour.*

SAWDUST BRANDY.—An American journal of high moral principles is sorry to learn that a German chemist has succeeded in making a first-rate brandy out of sawdust. "We are friends to the temperance movement," says the editor, "and want it to succeed; but what chance will it have when a man can take a rip-saw and go out and get drunk with a fence-rail? What is the use of a prohibitory liquor-law if a man is able to make brandy smashes out of the shingles on his roof, or if he can get the delirium tremens by drinking the legs of his kitchen chairs? You may shut an inebriate out of a gin-shop and keep him away from taverns; but if he can become uproarious on boiled sawdust and desiccated window-sills, any effort at reform must necessarily be a failure. It will be wise, therefore, if the temperance societies will butcher the German chemist before he goes any further. His recipe ought not to be made public. He should be stuffed with distilled board-yards until he perishes with *mania a potu*."

ADMINISTRATION OF RAW BEEF.—The *Journ. de Pharm.* commends the following plan: Beef should always be rasped, not chopped. The rasping is done with a sharp knife-blade,—the sharper the better. The piece of meat should be pretty thick, and of lozenge shape; the rasping can be done on all the facings, in the natural direction of the muscular fibre. The piece should rest, held by one end, on a resistant and slightly inclined plane. The meat may be given in the form of a pill or bolus, which is rolled in powdered sugar or crumb of bread. If it cannot be taken thus, it may be given under the mask of bouillon, which should be cold. One of the best methods is to prepare a thin porridge of tapioca; let it cool till it cannot cook the meat in the least. Then the meat, finely rasped, is introduced into a small quantity of cold soup till the mixture is complete. This mixture has the aspect and consistence of a fine soup of tomatoes. Next the tapioca porridge is gradually poured on this soup, the mixture being constantly stirred. Thus a homogeneous porridge is obtained, in which the meat is so well concealed that no one would detect it unless previously advised of its presence.

DEATH OF VON BAER.—The German journals report the death of the well-known naturalist, Karl Ernst von Baer, at Dorpat, on November 28.

MR. WILLIAM HARVEY, the well-known aurist, and author of the "Banting system," has died from the exhausting effects of carbuncle.

NOTES AND QUERIES.

HALL OF THE NORTHERN MEDICAL ASSOCIATION,
608 FAIRMOUNT AVE., PHILADELPHIA, Jan. 13, 1877.
TO THE EDITOR OF THE MEDICAL TIMES

Dear Sir,—At the Annual meeting of this Association, held on the 12th inst., the following officers were elected for 1877: for President, Dr. S. R. Knight; Vice-President, Dr. L. B. Hall; Treasurer, Dr. E. I. Santee; Secretary, Dr. Charles Carter; Corresponding Secretary, Dr. E. R Stone; Reporting Secretaries, Dr. S. D. Risley and Dr. E. E. Montgomery; Counsellors, Dr. N. L. Hatfield, Dr. J. Henry Smaltz, Dr. Levi Curtis, Dr. W. M. Welch, and Dr. Charles Carter.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM DECEMBER 31, 1876, *TO JANUARY* 13, 1877, *INCLUSIVE.*

BROWN, J. R., SURGEON.—To report in person to the Commanding General, Military Division of the Atlantic, for temporary duty in the Medical Director's office of that Division. S. O. 266, A.G.O., December 28, 1876.

BILL, J. H., SURGEON.—To report in person to the Commanding Officer, Department of the South, for assignment to duty. S. O. 266, A.G.O., 1876.

FRYER, B. E., SURGEON.—To report in person to the Commanding General, Department of the Missouri, for assignment to duty. S. O. 266, A.G.O., 1876.

BROWN, H. E., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Wadsworth, N. Y. H. S. O. 5, Military Division of the Atlantic, January 6, 1877.

BENTLEY, E., ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 1, A.G.O., January 3, 1877.

CRAMPTON, L. W., ASSISTANT-SURGEON.—Assigned to duty with Second Battalion Thirteenth Infantry, New Orleans, Louisiana. S. O. 258, Department of the Gulf, December 30, 1876.

WRIGHT, J. J. B., COLONEL AND SURGEON.—Retired from active service, to date December 31, 1876, by direction of the President, in conformity with Sec. 1244, Revised Statutes. S. O. 2, A.G.O., January 5, and S. O. 6, A. G.O., January 10, 1877.

MILLER, GEO. MCC., ASSISTANT-SURGEON.—His resignation accepted by the President, to take effect January 1, 1877. S. O. 266, A.G.O., 1876.

By direction of the Secretary of War, the Army Medical Board convened in New York City by S. O. 149, A.G.O., July 10, 1874, is dissolved. S. O. 266, A.G.O., 1876.

PHILADELPHIA, FEBRUARY 3, 1877.

ORIGINAL LECTURES.

ABSTRACT OF A CLINICAL LECTURE ON CATARRHUS SUFFOCATIVUS NEONATORUM.

Delivered at the Allgemeine Poliklinik, Dec. 19, 1876.

BY ALOIS MONTI, M.D.

Reported by C. W. DULLES, M.D.

CATARRHUS suffocativus neonatorum is a disease which occurs most frequently in the spring and autumn, at times when the proper heating of rooms is most difficult of management. It is sometimes caused by a child being delivered in a cold room, or being chilled in a bath, or in a walk, or while a room is being aired.

But, from whatever cause it arise, its course is a most fulminant one. Suddenly there appears fever, which in an hour may run up to 39°, 40°, 41° (C.), and even higher; then a dry and frequently repeated cough sets in, with some dyspnœa, which in a few hours is evidenced by the bluish tinge of the skin and the soporific condition of the little sufferer. The dyspnœa proceeds until all the muscles of respiration are called into play in the attempts to fill the lungs with air. Cyanosis becomes more marked; the lips, the skin, and the nails become blue and cold. Inspiration and expiration are sharp and quick; the lower part of the thorax and the epigastrium are depressed with every inspiration. In the first twelve hours there is usually only a dry, suffocative cough, with hurried respiration and a constant tendency to asphyxia, which may appear every half- or quarter-hour and last two or three minutes, and in any such attacks the child may die. These do not pass off of themselves; they demand the interference of medical skill. Later, fine whistling râles make their appearance, with a moister cough and less of it; then, with the exhaustion of the child and the further impairment of its respiratory apparatus, come increasing coldness of the surface, asphyxia, convulsions, and death.

Children attacked with this disease very rarely recover. If recovery is to occur, the fever declines, the cyanosis lessens, the breathing becomes easier, and gradually all the symptoms abate, until in four or five days the child is out of danger.

Such a result, however, is one of the rarest occurrences, and in every case the prognosis must be the most reserved that is possible, and the parents must be warned that death is the most likely outcome of the disease.

The treatment must be symptomatic. This is no case where a physician can give a prescription and go away, saying he will call again in the evening. If he does, he will probably call upon a corpse. He must himself remain with the child, or leave a thoroughly fitted assistant. There is no disease in which the efforts of the skilled physician are more indispensable, or their value more plainly apparent to the family and satisfactory to his own consciousness. In no other does he seem more directly to rob death of its prey.

In the earlier stages, when the fever is high, quinine should be given, and cold baths of 24° or 18° (C.) every hour. Inhalations of turpentine should also be used. But the symptom which calls for the most energetic treatment is suffocation. When this threatens, respiration must be excited or produced by stimulants or artificial means. For this a cold douche upon the epigastrium may suffice once; but it cannot be relied on for repeated use; because, after its first application, with the recurring asphyxia its effect decreases, while it acts unfavorably upon the vital forces of the little patient. Sometimes immersion in a bath containing mustard-flour will excite the respiration, sometimes to this must be added the douche. But no stimulus acts more promptly than *catheterization of the trachea.* This must be done by taking a small tracheal tube or a soft catheter of about 24 millimetres diameter, which can be bent to the proper shape, and, while the left index-finger presses forward the base of the tongue, passing the end of the instrument, placed on the palmar aspect of the right index-finger, carefully just beyond the epiglottis, when by carrying the hand quickly in a direction upward and towards the patient and then downward and somewhat away from the patient, the end will slip safely into the trachea.

The effect of such a procedure is usually to excite a fit of coughing, in which a quantity of mucus is expectorated, and which is followed by respiration. Should

it not have this result, you may blow into the catheter, and, by this and acting mechanically upon the thorax, keep up artificial respiration until natural breathing is established. If this does not succeed, faradization, with one pole applied to the neck and one to the epigastrium, will sometimes excite respiratory movements. In every case the utmost patience and skill are required, and when they prove successful nothing can more contribute to the reputation of the physician and his own satisfaction. I have before, when speaking of the use of tracheal catheterization, mentioned a case where I saw a child apparently dead, whose death-certificate had been made out by the physician previously in attendance, and where the insertion of the catheter and artificial respiration, continued for more than half an hour, brought back life to the child. Another case has occurred in my practice, when, being called at two o'clock at night, I came with my catheter and electrical apparatus and worked until morning, when I had the satisfaction of seeing the beginning of a recovery which was afterwards perfected.

Remember, then, the necessity of the greatest patience and the highest skill you can command in the management of this disease.

Finally, let me remark that of emetics I have said nothing yet, because I think their use in most cases dangerous. In the case of a very strong child, at the first onset of dyspnœa an emetic may be used experimentally; but such a practice may do no good, might do much harm, and cannot be often repeated without disastrous results. The most important principle in all the treatment is to maintain by every possible means the strength of the child, and to meet the symptomatic indications.

CAPACITY OF THE HUMAN STOMACH.—The capacity of the human stomach is estimated at two quarts. The recent exploits of a couple of Londoners prove, however, an exception to the rule. By a careful estimation of the quantity of food and liquor taken during a so-called spree, it would seem that each stomach held two gallons, or else there were no pyloric valves. The prospects for soon settling the question by an autopsical examination were at last accounts quite promising.

ORIGINAL COMMUNICATIONS.

WRITERS' CRAMP: ITS SYMPTOMS AND TREATMENT.

BY GEORGE M. BEARD, M.D.,
New York.

Read before the New York Journal and Library Association, November 5, 1875.

PART I.—COURSE AND DIAGNOSIS.

THE disease known as writers' cramp is but one of many diseases, or rather symptoms of disease, resulting from overuse of groups of muscles in special directions. Thus, we have milkmaids' cramp, caused by over-use of the muscles of the hand in squeezing the udders of the cow; the sewing-girls' cramp, caused by excessive use of the muscles concerned in the act of inserting and drawing out a needle; the pianists' cramp, the result of striking with the fingers on the keys of a piano; the cramp of the *danseuse*, an affection of the muscles of the calf of the leg, caused by their much straining and over-use in standing on tip-toe and executing the delicate and rapid movements that so astonish audiences;* the hammer palsy, from protracted uplifting of the hammer, with limited up-and-down motions, which are required in some of the mechanic arts;†

* Dr. B. Schultz, of Vienna, has described three cases of dancers' palsy. In one of them the patient complained of very severe pain, beginning in the soles of both feet and extending to the calves of the legs. These pains increased in violence until the consciousness of security was lost, and the feet felt as if made of wood. Violent palpitation attended these pains, and, if she persisted in dancing, she would become faint and unconscious, and the body would grow rigid. Dr. Schultz found, on examination, that the cause of the difficulty was in the *pas* performed on the points of the feet, and was due to fatigue of the muscles which fix the metatarsus and phalanges of the great toe. On further examination it was ascertained that many of the female solo-dancers were troubled in this way, though to a far less degree. The ballet-master was accustomed to relieve cases where pain existed by tying a handkerchief tightly above the ankle. Other members of the *corps de ballet* than the solo-dancers were not affected.

† Dr. Onimus mentions a case of a man employed in a draper's establishment, and whose duty it was to put back the unfolded goods on the shelves. This exercise called mainly on the deltoid muscles, and in time there came on very gradually atrophy of these muscles on both sides.

Dr. Onimus also reports a case of a workman employed in a tannery eleven hours daily. In preparing the skins he had to perform a certain forward-and-backward movement, which drew especially on the muscles of the shoulder. These muscles on both sides became atrophied. In the right leg also there was atrophy of the rectus femoris, vastus externus, and vastus internus, due to long standing, resting the weight of the body on the right side. The first symptoms in these cases are a feeling of prostration, even in the morning on rising, and darting intermittent pains. The same writer also speaks of atrophy of the muscles of the thenar eminence, particularly of the adductor pollicis, in an enameller who was obliged to hold some object all day between his thumb and index-finger. Three points in the differential diagnosis of this malady and ordinary progressive muscular atrophy are presented by Dr. Onimus:

1. The muscles first to be affected are generally the largest ones.

and, lastly, telegraphers' cramp, to which Onimus has lately directed attention, and which is a result that might be expected to follow the employment of a telegraph operator.

Writers' cramp has been longer and more widely known than any other of these special forms of muscular trouble, for the reason, mainly, that writing is an old art, and one that is practised by a large number of people, many of whom depend upon it almost entirely for their support, laboring with the pen, it may be, for many hours daily; whereas in most of the mechanic arts depending upon limited groups of muscles there is more frequent change of position, and usually a wider play of motion. In the making of a piano or watch, in the manufacture of various articles,—glass, for example,—labor is divided and subdivided most minutely, so that each man knows and does his own special task, and no more, with no thoughts or acts beyond it; but in almost all processes of manufacture, even those most limited and special, there is more variety of action, greater freedom, and less restriction of motion to the co-ordination of a small number of muscles, and also more frequent opportunity for rest and change, than in writing. I have heard, however, that type-setters have a form of cramp or palsy peculiar to their calling; but no case of the kind has ever come under my care, although I could readily believe that now and then such a disease might appear.* Miners' nystagmus or constant oscillation of the eyeballs, caused by straining the eyes in the poor light of mines, is also to be included in this category.

In regard to the predisposing causes of writers' cramp, there are three considerations that have not hitherto been brought forward. *First.* It is a disease of the comparatively strong, rather than of the specially weak and feeble. This peculiarity writers' cramp shares with locomotor ataxia, progressive muscular atrophy, chronic alcoholism, and some other diseases of the nervous system. Those who are attacked by those maladies are not usually of the strongest types, nor of phlegmatic temperaments, nor, on the other hand, are they extremely nervous and hysterical; they are rather moderately strong but slightly nervous, or just enough so to be capable of appreciating evil influence long continued, but not sufficiently so to be affected instantly and suddenly, and so, not being warned by excesses, through bad symptoms affecting the nervous system in general, they go on committing excesses until local and severe difficulty appears.

Writers' cramp among hysterical women or very delicate men is rare. Such organizations cannot write long enough and hard enough to develop this disease; they become generally wearied and nervous; headaches, backaches, sleeplessness, bad dreams, dyspepsia, the whole list of functional woes, disturb them when they have written too much, and these symptoms come on at once or very soon after any excess is committed, and compel them to stop and rest, and by this forced rest they are saved. The strong, phlegmatic man has no such warnings, and he writes on until local and chronic weariness appears in the muscles concerned in the act of writing; the centres in the brain and spinal cord are tired out.

Nearly all the cases of writers' cramp that I have seen have been in persons who have had scarcely any other nervous disease,—who have never known what it was to consult medical aid for any chronic affection whatever, and who, on that account, are amazed that they break down in this special direction.

Secondly. Copyists and routine writers are more liable to this disease than authors and original composers. Lawyers and lawyers' clerks, who are busied largely in writing out the formal language of deeds, com-

2. The pain and cramps at the beginning of the disease.

3. These cases improve under rest and the use of galvanism more rapidly than progressive muscular atrophy.

Romberg (Nervous Diseases, vol. i. p. 322) relates the following case: "Some time ago, a smith, aged 37, came under my notice, who applied for relief at the hospital for a rigid contraction of the muscles of the forearm, occurring whenever he took hold of the handle of his hammer and wanted to fetch a blow. It was accompanied with violent pain, and the tense muscles were said to project like cords under the skin. This cramp had prevented him from attending to his business for the previous six months. All the other movements of the arm were unimpaired, nor did the motor or sensory functions of the arm show any other deviation from the normal standard. A violent concussion of the arm was stated to have given rise to the complaint in the first instance. The most energetic remedies, and at last the continued application of electro-magnetism (faradization), produced no effect, so that the patient was forced to abandon his trade, and to occupy himself with painting doors and windows, the handling of the brush not causing any inconvenience."

* The literature of writers' cramp is not very abundant. Romberg, in his chapter on the subject, says that Brück (Caspar, Kritisches Repertorium, 1831, vol. xxx. ii., i.) first called attention to the disease. Canstatt also (Die Specielle Pathologie und Therapie, vol. iii. p. 313) wrote on the subject, and distinguished between cramp of the flexors and extensors. Solly (Lancet, 1864, p. 204; 1865, p. 114) discusses its pathology. The electro-therapeutics of the disease have been discussed by Althaus (Scriveners' Palsy and its Treatment by Galvanization of the Sympathetic Nerve), Poore (Practitioner, Sept. 1872), Holles (Practitioner, Aug. 1873), and others. The monograph of Erb on Functional Nervous Diseases, in Ziemssen's Cyclopædia, recently translated, may be consulted.

plaints, bequests, and so forth, employees in offices where verbatim copying is required, stenographers, who write out in full the reports they take of long discourses, —these are the classes that provide the candidates for writers' cramp; while great poets, historians, preachers, literati, and men of leisure who are also authors, are passed by. Editors who are in positions where much merely conventional routine pen-work is needed, and those who have many formal letters to write, may be attacked; but original creative writing, however extensively carried on, does not seem to predispose to this disorder. For this comparative exemption of those who live by original brain-work, a twofold explanation suggests itself:

(1) The counteracting influence of the higher forms of cerebral activity, the originating and expressing of ideas, is the healthiest possible form of work; and partly, though not entirely, for this reason is it that the great thinkers of the world have on the average lived longer than men of ordinary ability in the same callings.

(2) In writing out original thoughts there are longer and more frequent intervals of rest from the mechanical task of making the letters, while waiting for the thoughts to arise or to be arranged in the brain. In copying either from books and manuscripts, or from memory, as is the case with lawyers in writing out or filling out legal forms, there is no thinking to be done, or very little, and nothing to wait for save the recognition of what is written on the page before the copyist, or in his brain; consequently, the pen goes along rapidly and steadily, without any of the pauses or diversions that almost always accompany original composition, even in genius the most gifted.

Thirdly. Systematically careful penmen are more liable to this disease than those who take no pains with their writing. The difference between men in this regard is very great, and it is not true, as many suppose, that geniuses always write illegibly. Handwriting is a matter at once of mental and physical organization, and is the result of a combination of qualities which may or may not coexist with great genius. An original thinker, who thinks and writes rapidly, and in whose teeming brain ideas and images crowd upon one another, will very naturally give less effort to the formation of his letters than one who never thinks at all, and whose mind can be given without distraction to the mechanical part of his task. The agitation of mind that accompanies and is part of original thinking, like any other form of mental agitation, shows itself in muscular agitation, which state, when it extends to the arms, is hostile to plain writing, and for that reason, and for the additional reason that when ideas arise in swift succession it is necessary to write rapidly lest we lose them,—to take them on the wing, else they fly out of our sight,—the manuscripts of authors are so hard to read. The remark, "Easy writing is hard reading," applies as much to the penmanship as to the composition. The man who gives thought to his penmanship, who is careful to make the lines straight and even and true, who studiously dots his "i's" and crosses his "t's" and gives the right twirl to his "q's," and who does all with conscious effort at each step and with every word and letter, and who worries over every blunder, will be more liable to writers' cramp, if he write much, and other conditions are the same, than one who gives no heed to any of these details, whose thoughts are wholly on the matter rather than on the form of the composition, and whose manuscripts, it may be, are a terror even to himself.

Although long-continued habitual overuse of the writing-muscles in routine work is the usual cause, yet writers' cramp sometimes appears to be excited or started by a single prolonged over-use of the arm in writing, it may be days in succession. In some emergency, such as may happen to a lawyer in an important case, the pen may be in hand all day and all night, engaged not in original composition exactly, but in work that is to a certain extent clerical and for the completion of which there is great haste. I have frequently noticed in my own experience that protracted copying tires my arm far more than original composition.

Few of us consider the vast amount of force, cerebral, spinal, and muscular, that we are compelled to use in the merely mechanical part of writing. A good way to test this is to write through the medium of an amanuensis or stenographer. About two years ago, while under unusual pressure of work, I thought of a suggestion once given me by my friend Austin Abbott, Esq., of the New York bar, to dictate to a stenographer. I found that when fully

prepared by thoroughly digesting the subject beforehand, it was sometimes possible in an hour's time, and without great exhaustion, to dictate a lecture that would require over an hour for delivery, to have written which in full, in the ordinary way, would have required several hours, with temporary weariness after each sitting. The fatigue of writing is much increased by the constrained position in which we sit; in dictating, one can walk the floor, or lie on a sofa, and change at any moment from a standing to a sitting or recumbent posture.

The symptoms of the malady under discussion are, in general, *weariness*, *pain*, *numbness*, *stiffness*, *coldness*, and *cramp* or *spasm* of the arms, hand, fingers, shoulder, or neck. Attention seems to have been first and mainly directed to the spasmodic symptoms: hence the term, writers' cramp. But in many cases there is no cramp; in others it is not the leading symptom; and in few, if any, is it the first or only symptom. The disease has been called a palsy; but in strictness it is not a motor palsy, although, in the worst stages, it may go on to what is practically a paralysis.

Writers' cramp comes like a thief in the night. The symptoms are at first so light and fleeting that their true nature is not suspected. A man whose life is given to pen-work, and who has never known what chronic nerve-illness means, and who believes himself proof against all nervous maladies, and who, consequently, has very likely terribly taxed his writing-muscles, finds some evening after working hard all day that his forearm feels tired: he automatically rubs it a little, it may be, and thinks no more of it. In a few days his arm is tired again, and with the sense of weariness there may be slight pain, and he says, "I believe I'm getting neuralgia."

Pretty soon he observes that this feeling of tiredness comes on in the daytime before work is done, and in the last hour's writing he is continually conscious that he has an arm. Note the fact that up to this point he no more suspects writers' cramp than he suspects smallpox. The arm as well as the forearm may at times be stiff, and in trying to raise it there is pain at the insertion of the deltoid. The pain radiates down the arm and forearm and fingers, and up the shoulder, and over the back of the neck, and down the dorsal vertebræ. The patient declares that he is getting rheumatism, applies liniments, and swaddles himself in thick flannels, and is all the time afraid he will take cold. Or subjective numbness, minutely and persistently localized in the last phalanges of the index-finger, may be one of the first symptoms. There is the pin-and-needle feeling in the part, and then a fixed numbness; the patient rubs and rubs it, but it will not out, and then he thinks he is going to have paralysis. Perhaps all these symptoms leave without any effort on his part to drive them away, and the patient supposes that his neuralgia or rheumatism or paralysis is cured forever; but these evil symptoms have not retreated, they are merely lurking in ambush, and they rush upon the victim with greater violence than before. Now they recur persistently during writing, or at once after writing, and the night's repose does not cure them; they are worse and worse, and cannot be shaken off; the liniments and rubbings have lost their power; to stop writing is the only relief; and now, perchance, the patient begins to suspect what his symptoms really mean.

Such is a picture, drawn from the life, of writers' cramp, without the cramp. Thus far, there may have been no spasm whatever. Soon the patient finds his index-finger slipping on his pen-holder; his grasping power is lost wholly, so that he cannot write at all, or in part, so that many of the letters are badly formed, and his penmanship, previously good, becomes irregular. At this stage, relief for the time may be gained by holding the pen between the index and middle finger, instead of between the thumb and index-finger in the usual way. But the disease is not long kept at bay by this procedure, for soon all the fingers become so much involved in the liability to spasm that continuous writing grows irksome, painful, or impossible. With these spasms come increase of the stiffness and pain. Except in sleep, the arm is never easy; it aches all over from the occiput to finger-tip, and the other arm may ache somewhat also, until the patient becomes generally nervous and fidgety. The arm, perhaps, feels worse when hanging by the side, and is most easy when resting on a table or in a suspensory handkerchief.

These symptoms are attended sometimes by coldness of the hand, that is perceptible on grasping it. The muscular spasms of writers' cramp sometimes take the form of shocks, resembling those caused by the

passage of a current of electricity, and by patients are usually referred to "electricity" or "magnetism." Mediums, and others who become partially entranced with their hands on a table or planchette, or with a pencil in hand to write messages, or while waiting in an attitude of reverence for any of the so-called manifestations, often experience similar involuntary muscular spasms, and attribute them to their "controls," or to "magnetism," or "psychic force." Romberg states that Prof. Müller had this symptom whenever he over-exerted his hand and fingers.

These early symptoms, tiredness, aching, spasm of the arm with numbness and stiffness, are as truly symptoms of the disease as the spasm or cramp, to which attention has been hitherto almost exclusively directed by writers on this subject. So much has been said of the spasm—very little having been written, or almost nothing at all, of the incipient symptoms—that physicians have come to look upon it as the disease, and the fact which in the light of my own experience I have been compelled to admit, and which in this paper I seek to enforce, that this disease has the other symptoms I have mentioned, which appear not only with the cramp, but also long before the cramp is suspected, appears to be not generally understood.

The relation of these early and mild symptoms to the later and more serious symptoms of cramp may be made clear by the analogy of *locomotor ataxia*. A staggering gait is a prominent symptom of *locomotor ataxia*,—the one which is the first to excite attention, and the only one by which non-experts are usually able to recognize the disease; and it is regarded in itself as almost diagnostic; but we all know that it is only one of various symptoms of this disease, and in the early stages may not appear at all. While congestion of the cord exists, part of the cord being congested and part being sclerosed, and long before the peculiar staggering gait is manifested, we have a number of symptoms fully familiar to neurologists, that, taken together, are as truly diagnostic of the earlier stages of this disease as is the staggering gait of the later stages. As the chief hope of treating ataxia cases with success consists in taking them in hand before the staggering gait has developed, so the chief hope of treating writers'-cramp cases with success consists in treating them before the cramp appears. As the name *locomotor ataxia* is a misnomer, and has really done evil by causing physicians to concentrate attention on one symptom, and that peculiar to the later stages, and to overlook the early and milder symptoms, so the term writers' cramp is a misnomer, and has done evil by bringing one symptom, and that one of the later stages of the disease, into such prominence that the early and incipient and middle symptoms have been passed by.

Concerning the locality of this disease, I may remark that it seems to be both cerebral and peripheral, involving the region of the spine whence proceed the nerves that go to the arm, and very likely also the left side of the brain itself. The thought- and word-centres are certainly in the brain, and words are expressed by speech, by gesture, and by writing, and the cerebral centre for words is now believed to be pretty definitely localized. That there are motor centres or starting-points in the cortex of the brain is forced upon my mind as a fact that in time physiologists everywhere must acknowledge, however widely they may vary in their interpretations of or conclusions from that fact; and I do not see how any one thoroughly familiar with the physical and physiological laws of electricity, and with the minute anatomy of the brain, as taught by the best authorities, can go over the experiments of Hitzing on dogs, cats, and rabbits, as I have twice done during the past year or two, and come to any other conclusion. Now, it is not a fanciful idea that the centre, or starting-point, of writing, may, by long use in a certain direction, become enfeebled and possibly diseased, just as much as the nerves that carry the commands of the brain, or the muscles that execute them.*

Whether the disease is primarily peripheral or central, cannot easily be determined; even if the lesion, be it congestion or simple molecular disturbance, be peripheral at first, it may secondarily affect the centres in the cord. Hayem has shown by experiments on animals, not yet completed, that injury of a nerve may cause inflammation of the spinal cord by a propagation of the irritation from periphery to centre. Thus, when the sciatic nerves of rabbits

* For a most admirable discussion of this subject, see Dr. Jewell's paper on "*The Existence of Definite Motor Centres in the Cerebral Cortex*," in the Chicago Journal of Nervous and Mental Diseases, October, 1875; also a very interesting criticism on Ferrier's work, by George Henry Lewes, in "Nature," November 28, 1876.

and dogs are lacerated, the irritation travels from the nerve up to the cord, producing there a generalized central myelitis. Yet more minutely Hayem has looked into this subject, and proves that different kinds of peripheral irritation provoke different kinds of central disorder; the chemical irritation of nicotine or crystals of bromide of potassium brings on lesions of the pia mater and arachnoid, while laceration causes a perimeningitis. The inference is, that these irritations are slowly propagated from periphery to centre, by means of the connective tissue of the nerves.

Dr. Erichsen* relates a case of interest, where the crushing of a finger produced symptoms of cerebral softening, and death. The patient was sixty years of age, and had his finger crushed on a railway-car, between the door and the frame on the side of the hinge. The bones were not injured, but the patient became faint, and was much exhausted by the shock. The wound healed slowly, but satisfactorily, but the patient, who had been in perfect health before, lost flesh, grew feeble, and never fully rallied. In a month came twitchings, shooting pains, and cramps in the arm; then he had a slight fit; then came numbness, feeling of pins and needles, twitchings of the face, and exhaustion. He could not satisfactorily attend to his business, and in the following year he died of cerebral softening. It was clearly a case of cerebral disease caused by peripheral injury, and his widow obtained a verdict against the company. Dr. Erichsen says that he has seen at least two other similar cases.

That the centres are affected in writers' cramp is quite clear from the history of cases. Three facts show this: the pain in the region of the cervical and dorsal vertebræ, the general nervousness that is sometimes excited, and the occasional extension of the disease to the other arm. Patients who have been always strong before, under the influence of this disease, after it has reached a severe stage, become irritable, nervous, and sleepless, and when they learn to write with their left hand the disease may in time extend to that also.

Burckhardt has made experiments, with complex and delicate apparatus, on the differential conductivity of healthy and diseased nerves, and he claims that in writers' cramp the nerves that go from the brachial plexus to the hand transmit the nervous influence at very different rates of speed, and that the interossei muscles differ somewhat in their excitability under electricity. If we receive the results of these experiments as facts, we have a clear and interesting elucidation of some of the phenomena of writers' cramp. The command to write, sent forth from the cerebral cells, does not reach the different members of the group of muscles that are used in the act of writing at the same time: hence, incoördination of action. This lack of harmony is further increased by the excitability of the muscles, a condition which, according to this observer, is always found in these cases. It is as though in an army an order should proceed from the commander-in-chief for a simultaneous attack of all the divisions, but through the delay of some of the messengers the different bodies should receive the message in irregular succession; in an attack under such circumstances, there would be the same incoördination and ill success that is seen in the muscles of a writers'-cramp patient when he attempts to write in obedience to the command of the will.

The great point in the diagnosis is, that the pain, or uneasiness, or aching, or spasms, are brought on by the act of writing, and are relieved more or less by abstaining from writing, and, usually, no other form of exercise of the muscles of the arm has this aggravating effect to so marked a degree. I have had one case, however, where the arm was always tired by carrying a parcel, and Althaus had a patient, an amateur pianist, who, "six months after the first difficulty in writing had appeared, found great trouble in executing a particular fugue which had been his great delight." This patient had then a combination of pianists' and writers' palsy.

* Concussion of the Spine, Am. ed., p. 230.

TWO CASES OF MYALGIA FOLLOWING CONTUSIONS.

BY J. C. WILSON, M.D.,

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TWO cases of painful muscle-trouble have recently been under my care. I have thought them worthy of publication, not because there was anything unusual or especially instructive about the attacks after they were once established, but because

they appear to me to be directly traceable to a cause not usually recognized as among those of so-called muscular rheumatism, and at the same time to illustrate a view of the pathology of such disorders which, whilst it is not new, is certainly not a familiar one.

They are examples of a malady of which Valleix, who gave much care to its study, said, "Muscular rheumatism has been always known, it is extremely common, its symptoms are few; at first sight nothing would appear easier than to describe it. But, in fact, nothing is more difficult than to delineate it with exactitude." Since his time, Inman, Anstie, and many others have done much to clear up our clinical knowledge of painful muscular disorders; but the exact pathological basis of their familiar phenomena is still involved in speculation and uncertainty. We know that these troubles are local, that they are manifest in the muscles, sometimes singly, sometimes in groups, and in their aponeurotic expansions or their tendinous prolongations. We recognize pain, tenderness, spasm, in most cases a slight but tangible fulness, often decided swelling, as the collection of symptoms constituting myalgia. We are accustomed to regard it as due to a disturbance of the balance between the nutrition of muscles and the work they are called upon to perform; and to attribute this disturbance to actual overwork, or to lessened nutrition of the affected muscles from locally acting causes, cold, damp-cold, strains, and the like, or from impaired general nutrition, in which any group of muscles doing its own accustomed work, or a little more, or even a little less, may be overworked, and so become myalgic. But of the tissue-changes which underlie these conditions we are to a great extent ignorant. Only those which come to pass in long-standing and uncured cases have been ascertained, and the affection, common as it is, is, as regards its true nature, altogether obscure. The obstacles in the way of precise histological investigation are here so great that it seems probable that further knowledge is to be reached for the most part by way of clinical work.

Garrod suggested that the essential pathological process might be inflammation.

Elsewhere* I have advocated the theory of the congestive or *sub-inflammatory* nature of these myalgic affections, and have adduced certain characters which seem to render that view most probable.

Clearly, despite the popular name, they are not rheumatic, nor indeed, as we commonly understand the term neuralgia, are they of that nature, and they can scarcely be claimed as inflammatory in the common sense of the word, though, as I have just said, I believe they are of that kinship. And these two cases, where we have an injury, a contusion, in short, traumatism followed by myalgia, are of some value as illustrating this theory.

Case I.—G. McC., a well-built man, of medium height, 44 years of age, a baker by trade, came to my office in November, 1876, seeking advice in reference to pains in and about the left shoulder.

His statement that his general health was good was borne out by his appearance and history. He had never had rheumatism, and did not belong to rheumatic people. He could recall no sickness except an attack of fever many years ago. His habits are temperate. Ten weeks before, he slipped on a stairway at the bakery and struck the front part of his left shoulder on a projecting rail. A good deal of swelling and soreness followed, and the shoulder became "black and blue." In a week these symptoms subsided, and he began to do a little work. The shoulder, he states, then looked quite right, and was no longer sore as at first; but at this time pain of a different character set in. This pain was seated in the front part of his shoulder, and extended down the arm to a point a short distance above the elbow-joint. It was a dragging, tearing pain, constantly present, but very much worse when he attempted to work. It had given him great trouble, and was growing worse instead of better. Although bred a baker, and accustomed to the hard night-work of his trade and to great and sudden changes of temperature, he had never had any trouble of the kind before.

I examined the arm, and found the coracobrachial and the coracoid head of the biceps full, tense, and tender upon pressure. Pain was distributed about the front of the shoulder, but it was easy to determine its focus in the muscles attached to the coracoid process.

Under a treatment consisting of prolonged gentle frictions evening and morning, and the hypodermic injection of one-sixtieth of a grain of atropia, every third or fourth day, the spastic condition of the muscles passed away, and with it the tenderness and pain. In three weeks he declared himself perfectly well, and as able to work as ever.

The atropia was injected, in all, five times.

* Paper read before the Philadelphia County Medical Society, December 13, 1876.

Here we have the malady closely following the injury; that is to say, no sooner have the symptoms of the primary trouble subsided, than those of the resulting myalgia show themselves, and that, too, with considerable severity.

In the case which follows, the association is not so close, but it is, I think, sufficiently clear.

Case II.—Mr. W., a gentleman of about 36 years of age, large and heavy, was, whilst in the act of alighting from a wagon at Bar Harbor, in August, 1875, thrown with considerable violence to the ground by the sudden starting of the horses. He fell upon his left side, the hip receiving the force of the blow. The usual phenomena of contusion supervened,—soreness, stiffness, discoloration, a slight amount of swelling. In a few days, however, all was well again, and the accident was forgotten. The following November, after his return to Philadelphia, he was seized with pains around the left hip, which, from his account of them, must have been myalgic in character. The attack occurred after a spell of damp, cold weather; it was unattended by constitutional symptoms; no other part of the body was affected, and in ten days it passed away.

No treatment was used except frictions with chloroform liniment and rest.

Thursday, September 26, 1876, he visited the Centennial Exhibition, and prolonged his stay into the evening to see fireworks. He arrived home very late and greatly fatigued. The next day there was soreness referred to the left hip and increased by movement. This grew worse till the following Tuesday, when he walked with difficulty and could scarcely rise from the sitting posture. On Friday he was compelled to remain in his bed, and did not leave it till the third day. There was no fever during this attack, no constitutional difficulty of any kind. The gentleman had never had any form of rheumatism, and rejoiced in unusually good health. Besides the pain there was marked deep tenderness of the tissues around the great trochanter, but not of the joint itself. In a word, we had to deal with a second attack of myalgia involving muscles that had been contused more than a year before. The contusion acted as a predisposing cause; the over-exertion and exposure in standing a long time on damp ground when tired, as exciting causes. Three days' rest in bed, with *massage* and subcutaneous injections of atropia and morphia combined, brought the difficulty completely to an end.

Dr. Inman* gives a brief account of a similar case. "Mrs. L. was the subject of a severe accident, which bruised the back considerably and materially debilitated its muscles. One morning shortly afterwards, as she was stooping forward to arrange her hair, the head bended on the chest, and both hands at the back of the head, a painful cramp seized the muscles, and in that condition she remained for three days in great suffering."

* Spinal Irritation Explained, 1858.

NOTES OF HOSPITAL PRACTICE.

EPISCOPAL HOSPITAL.

SERVICE OF DR. JOHN H. PACKARD.

Reported by OLIVER ROLAND, M.D., Resident Surgeon.

I.—TREPHINING FOR A COMPOUND, DEPRESSED, IMPACTED FRACTURE OF THE SKULL.

T. McG., æt. 40, a laborer by occupation, was admitted to the surgical ward of the Episcopal Hospital November 18, 1876. He had walked some three or four squares to get to the hospital, his gait being unsteady and staggering. He stated that while he was working in a culvert an iron bar, with other débris, had fallen upon him, striking him on the head, knocking him down, and rendering him insensible for a short time.

An examination revealed a compound, depressed, impacted fracture of the skull, located in the anterior part of the right parietal bone. There was considerable laceration of the scalp, and the depressed portion of bone was as large round as a silver quarter, and as deep along half its circumference as the thickness of the skull, perfectly smooth, and, although comminuted, yet neither with the forceps nor elevator could any pieces be raised. There was also a severe contusion of the neck, with several other minor injuries. The man complained of severe pain in his head, and giddiness, and was evidently still suffering from the shock of the blow, though in all respects perfectly rational.

His head was shaved, the scalp-wound simply drawn together with adhesive strips, and a light compress placed over all. Ice was then continuously applied, he was given calomel, gr. viii, kept in bed, and put upon an exclusively liquid diet. His urine and fæces were voided naturally; pulse and respiration normal. During the night, as he was rather restless and slept little, he was given a full dose of bromide of potassium. Throughout the whole of the following day his condition was much the same. He took his food well; the pain in his head was described as dull and heavy,

and giddiness returned whenever he tried to sit up in bed. He was put upon a treatment of opium and calomel, and his bowels kept freely moved.

November 20.—Slight fever and heat of head were noted, the pain much the same in character; there was also occasional diarrhœa; the pupils were moderately contracted, but equal on both sides; the pulse was full and about seventy-six per minute. A large blister on the nape of the neck gave some relief, and the man passed a comfortable night.

November 21.—Superadded to the above symptoms were slight sickness of stomach and a tendency to wandering delirium at night, but during the day consciousness was fully preserved.

November 22.—Pupils still moderately contracted; he vomits almost everything he takes; in the afternoon great restlessness and delirium, followed during the night by stupor and stertorous breathing, with a loss of control over the bowels and bladder.

November 23.—Pupils contracted to pin-points, slight paralysis of left arm and leg, tongue coated, breathing labored, pulse sixty per minute, occasional convulsions and profound coma. During the morning he was trephined by Dr. Packard, the whole of the comminuted portion of bone being removed, and the remainder of the depressed part being readily raised with the elevator. The membranes were seen pulsating synchronously with the heart's action, and seemed to be intact.

No immediate effect from the operation was experienced, but gradually the man seemed to breathe more freely, and in about four hours consciousness had partially returned. During the night, however, his pulse became much weaker, there was profuse sweating, and a slow return to the same condition as before the operation, and at half-past eight o'clock next morning he died.

The autopsy revealed an abscess of the brain immediately under the seat of fracture, together with diffusion of pus over the whole surface of the brain, two or three ounces flowing out upon the removal of the cranial contents. The brain-substance itself appeared to be normal.

In connection with this case it is of interest to report another, in which the nature of the injury, and the symptoms on admission, were almost identical, but the course and final result of the case totally different.

II.—COMPOUND, DEPRESSED, NON-IMPACTED FRACTURE OF THE SKULL.

C. S., æt. 32, an employee of the North Pennsylvania Railroad, was admitted to the surgical ward of the Episcopal Hospital about nine o'clock on the morning of December 12, 1876. He walked into the hospital supported by two men, his gait being very unsteady and staggering, and when questioned as to the nature of his injuries gave a very rambling and incoherent account. It was, however, afterwards discovered that they had been received while looking out of the door of a baggage-car, the train being in full motion. His head had struck violently against some object, throwing him on the floor of the car and rendering him insensible for some time. He was brought to the hospital three or four hours after the accident, when an examination revealed a large lacerated wound of the scalp, and one-eighth of an inch to the right of this a depressed fracture of the skull, elliptical in shape, two and one-half inches in length, and as deep in one place as the thickness of the skull, located just in front of the left parietal boss. There was considerable headache and dizziness, and the man vomited several times during the day. His pulse was about one hundred and ten per minute, pupils equal and slightly contracted. It was found necessary to catheterize during the night.

The treatment consisted in simply closing the wound with adhesive strips, the application of ice, and the administration of calomel and opium, his bowels being freely opened by purgatives. Diet exclusively liquid. He passed a rather restless night, but in the morning seemed to be improved. Though the pain in the head still continued, it was much less severe, and there was little or no giddiness when he sat up in bed. His sphincters were altogether under control, his appetite good, and no other symptoms of compression had yet manifested themselves. He continued to improve rapidly, and in about a week was, at his own request, discharged, the scalp-wound being almost entirely united, and all brain-symptoms having ceased two days previously.

Remarks by Dr. Packard.—These two cases, taken together, afford a good illustration of the delicacy and difficulty of the questions which may arise as to the

prognosis and treatment in injuries of the head,—especially as regards operation.

Both these patients were adults, between 30 and 40 years of age, and both in robust health, although No. 1, the older, had more the appearance of a drinking man. In both the injury had been a very severe blow, followed by insensibility; and the amount of local lesion was very nearly alike in both. Both staggered, but No. 1 walked to the hospital at once by himself, was rational, and for several days presented no symptoms beyond restlessness, slight diarrhœa, and a little wandering at night. No. 2, on the contrary, several hours after he was hurt, could only walk supported by two men, talked incoherently, had a pulse of one hundred and ten, and at night required the use of the catheter.

And yet, while No. 2's recovery was rapid and uninterrupted, No. 1, whose earlier symptoms had been less serious, became, on the evening of the fourth day, very ill, and on the fifth the signs of compression were such as urgently to indicate operative interference, which, however, was unavailing.

Had trephining been resorted to on this man's admission into the hospital, it might possibly have changed the issue of his case, but, on the other hand, a rule of practice which had demanded its performance on him would have still more demanded it for No. 2, who did well without it; and the acknowledged risks attending this procedure would certainly have diminished the latter's chances.

It must not be forgotten that injuries of the head are by no means unapt to be followed by secondary trouble, even after the lapse of years; and the surgeon who expresses himself too confidently as to the safety of a patient, merely because his symptoms have subsided, may find his opinion unfulfilled. This qualification seems needful in regard to the expression above used as to the "recovery" of case No. 2.

TRANSLATIONS.

ORIGIN OF PHOSPHATE OF CALCIUM ELIMINATED BY THE INTESTINES AND KIDNEYS; THERAPEUTIC VALUE OF THIS SUBSTANCE.—From a lengthy article upon phosphate of calcium in the economy by MM. Paquelin and Jolly, published in *La France Méd.*, October, 1876, we take the following conclusions: 1. Phosphate of calcium is only absorbable in the smallest quantity. 2. The organism can in general consume but a very small amount. 3. The circulation conveys only the most insignificant quantities; the tissues, bones excepted, contain, so to speak, only *traces* of the salt. 4. The economy manufactures its own phosphate of calcium by a double exchange, and finds in the food all the elements necessary to increase the production of this substance according to its requirements. 5. The phosphate of calcium found in the urine is for the most part a product of intra-vesical formation; the totality of the urinary phosphate of calcium is therefore not a direct product of dis-assimilation. For this reason the figure intimated by authors as representing the normal mean of dis-assimilated phosphate of calcium, which does not take account of this fact, is tainted with a decided error. 6. The artificial phosphates of calcium, soluble or insoluble, are rejected by the excrementary passages without being utilized. 7. Of the two elements phosphoric acid and lime which enter into the composition of the phosphates of calcium, soluble and insoluble, the first (phosphoric acid) is absorbed, in certain proportion, in the condition of alkaline phosphate; the second (lime) is rejected directly and almost completely by the intestinal passages. 8. The addition of phosphated lime to the diet is, therefore, an obstacle to nutrition. 9. The soluble preparations of phosphated lime act at first as acid principles, then, on account of the changes which they undergo in the intestine, they act secondarily in a certain measure as phosphoric agents with another base. X.

INJECTIONS OF HOT WATER IN UTERINE HEMORRHAGE.—R. Windelband (*Centralblatt für Chirurg.*, 1876, No. 48) had his attention drawn to the successful use of this remedy by Dr. Mann, of Rhode Island. Two years' experience has convinced W. that injections of hot water into the vagina and uterus form the very best treatment for uterine hemorrhage when some immediate relief is demanded. The temperature of the water is from 38° to 41° C. (102° to 104° F.). The hot injections never leave any uncomfortable feeling in the parts, nor any evil after-result. The explanation of the action of hot water is that it excites in a high degree the muscular fibres of the uterus to action. X.

Effects of Wounding the Cervical Sympathetic.—A. Seeligmüller (*Centralbl. für Chirurgie*, No. 47, 1876) has observed eight cases of this lesion out of the thirteen recorded instances. Of these thirteen cases, ten were accompanied by pain, only three by symptoms of irritation. The symptomatic phenomena of traumatic lesion of the cervical sympathetic are (1) oculo-pupillary, (2) vaso-motor, (3) trophic. Belonging to the first series may be mentioned the following symptoms: following paralysis of the sympathetic, imperfect opening of the eyelids, contraction of the pupil, retraction of the eyeball; in the case of irritation of the sympathetic we find, on the contrary, the lids widely opened, dilatation of the pupil, and protrusion of the eyeball. In two cases, however, irritation of the sympathetic was followed by decided contraction of the eyelids instead of the reverse.

The second series of phenomena were less frequently observed. In some cases the vaso-motor disturbance seemed spasmodic instead of continuous. In ten cases of paralysis of the sympathetic, vaso-motor disturbances were only noted twice; in one instance, reddening merely of that portion of the face which corresponded with the distribution of the nerve was noticed; in another, increase of temperature was also observed. Of the three cases of irritation of the cervical sympathetic observed by S., vaso-motor disturbance was noted in only one; but here it was very striking. The face of the patient, who was a hard drinker, retained on one side its habitual deep flush, while on the other the spasm of the capillaries was shown by marked pallor. In addition, the temperature in the external auditory meatus of the affected side was nearly one degree centigrade lower than upon the normal side.

As to the third series, trophic disturbances were observed in only five cases out of the thirteen. In the case just alluded to, wasting of the affected side appeared very soon after the accident, so that within eight days the difference between the contour of the patient's two cheeks was quite noticeable. In the cases of paralysis of the sympathetic it is difficult to conceive any explanation of the consecutive hemiatrophia facialis without presupposing the existence of specific trophic nerves. As to the origin and form of the original injury, in the ten cases of paralysis of the cervical sympathetic six occurred through gunshot injury, one from penetrating wound, two from fracture of the clavicle, and one from severe contusion of the shoulder. The three cases of irritation of the cervical sympathetic occurred once from contusion of the shoulder with fracture of the clavicle, and twice without such fracture.

Dr. Hutchinson, as is known, has called attention to the frequent concurrence of paralysis of the brachial plexus with affection of the cervical sympathetic. In nine of Seeligmüller's cases the brachial plexus was either partially or entirely paralyzed. He thinks this took place not through the contiguity of the sympathetic, but by means of recurrent connecting branches. Seeligmüller is of opinion that if the sympathetic phenomena were observed in every case of injury to the shoulder, the number of recorded cases would be very largely increased. x.

New Abortive Treatment for Anthrax.—J. Guérin (*Bull. de l'Acad. de Méd.*, 1876, Nos. 36 and 37) distinguishes two kinds of carbuncle, the benign and the malignant. The first is a local affection, and comparatively without danger; the latter consists in a more or less severe infection of the general system, dependent upon septicæmic changes in the centre of the carbuncle from exposure to the air. From this theoretical basis G. deduces two indications for treatment: first, to contend against the formation of the septic poison in the carbuncle, and second, to hinder the absorption of this poison by the circulation. He effects his object by a large ichthyocolla plaster, which is provided with an opening in the centre, through which disinfecting applications, carbolic acid, permanganate of potassium, and the like, can be applied to the middle of the carbuncle. The effect is immediate: the redness diminishes, the pain lessens, even when the inflammatory appearances have been very marked, and the tumor diminishes in size. The subsequent treatment consists in the employment of linseed poultices and carbolic acid solution. By this means Guérin has succeeded in aborting not only the malignant pustule, but also erysipelas, the stings of poisonous flies, purulent inflammation of the joints, etc.; and he recommends the method in every case where infectious disease may be developed from a local diseased centre, as well, finally, as in dissection-wounds. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 3, 1877.

EDITORIAL.

THE LAW OF LIBEL.

A LIBEL suit has just been tried in this city that has sufficient special interest and warning in its history to make it worthy of consideration by the general profession. It appears, to omit non-essential details, that Drs. Buckman and Longshore were examining physicians to a mutual life insurance company, in which Dr. Thomas H. Andrews was insured. The company's business falling off, and much dissatisfaction with the medical examiners prevailing, one or more of the officers of the institution approached Dr. Andrews in regard to the character of the medical examiners, and were informed that they were men of bad repute. Finally, at solicitation, Dr. Andrews stated, in writing, that the medical examiners were not recognized by the regular profession, and that one of them, to his certain knowledge, was connected with a quack medical institution,—the Penn Medical University.

The medical examiners, it seems, were annually elected, and, at the election subsequent to the inditing of this letter, Drs. Buckman and Longshore were voted out, and Dr. Andrews was voted in. The issue charged that Dr. Andrews had injured the professional standing of Dr. Buckman, and had directly caused the loss of his position, from which, according to his statements on the stand, he was deriving a yearly revenue of fifty dollars.

The defence asked for a non-suit, on the ground of a "privileged communication." The non-suit was not granted; but the discussions of the lawyers and the charge of the judge outshadowed plainly the law on the subject, and the matter seems so important and so little understood by the medical profession that we state it here.

If a man make, "as a busybody," and without having any direct interest in the case, a statement damaging to another, and a suit of libel be instituted, then all the plaintiff has to do is to prove the libel and the injury worked to himself: the fact of the libel is considered prima facie evidence of malice, the presumption being against the defendant, who must prove the truth of his assertion. If the defendant establish this, he is free from civil prosecution, but is still liable to criminal process, at the instance of the commonwealth, if it can be shown that the libel was of such character as to endanger the peace of the commonwealth. If, however, the defendant in a libel case had a proper interest to be served in making the statement, or if the statement have been made in answer to inquiries by those having a direct interest, then the communication is legally "a privileged one," and the presumption is in favor of the defendant. The utterance of the libel is no longer prima facie evidence of malice: the burden of proof rests upon the plaintiff, who must show the falsity of the charge. The charge being proved false by the plaintiff, the defendant may still acquit himself by showing that he had reasonable grounds for believing it true. If he cannot do this, the falsity of the charge is presumed to show malice, and the libel stands. Thus, to use an illustration employed by Judge Hare in his charge, if a doctor go voluntarily into a family where one is sick, and tell the patient or his friends that the physician is incompetent, a libel suit will lie in its strictest rigor; but if a member of the family come to a physician and say, "My brother is sick under the care of Doctor so-and-so: is the doctor competent?" the reply will be of the nature of a "privileged communication."

The bearing of the law upon the present case is plain. Dr. Andrews, being a

copartner in an association, was approached by officers of that association, and wrote a letter at the suggestion of the parties interested. Such communication was evidently a "privileged communication;" and so Judge Hare decided. It was distinctly shown by the evidence, as given both on the side of the plaintiff and on that of the defendant, that the first allegation made by Dr. Andrews was true,—that Dr. Buckman, although a graduate of the University of Pennsylvania, belongs to none of the regular medical societies, and is not met by regular practitioners in consultation. In regard to the second allegation, the judge declared that he was in greater doubt, the word "quack" being a difficult one to define, especially when used in regard to institutions. He stated that he should incline to understand it as applicable to a college which, in the character of its faculty, in the manner and scope of its teachings, was decidedly below the level of the average institutions of its country. The only evidence before the jury in regard to the Penn Medical University was to show that it was not recognized by what are usually termed the regular medical colleges of the country. This would seem, the judge stated in substance, to imply that it was below the range of such institutions; but it was a matter for the jury to decide whether that inference was to be fairly drawn, and whether the word "quack" was properly applicable to the Penn Medical University, so far as the scant amount of evidence before the jury would enable them to judge. His honor also further charged that if, in the opinion of the jury, the evidence did not prove that the college was a "quack institution," they must still find for the defendant if the evidence showed that there were reasonable grounds for believing that Dr. Andrews honestly gave the opinion that the college was of such character.

Under this charge, the vindication of Dr. Andrews would seem to the uninformed medical mind, at first glance, inevitable. But juries are not composed of medical men; and the counsel for the plaintiff, of course, endeavored to make the twelve good and true men believe that it was a quarrel between different medical schools, in which one was as good, or, as he put it, as bad, as the other, but in which one man had ousted the other for the sake of his place by calling him a "quack." The result was that the jury, when it went out, stood two for defendant to ten for plaintiff, and when it was discharged, four to eight.

The deductions to be drawn from this case are so evident that it is scarcely worth while to point them out. We cannot, however, refrain from calling attention to the great care which ought to be exercised in the use of the word "quack." Very rarely is its employment justifiable, and still more rarely is anything accomplished by its use. It always sounds to an outsider like calling names; and it is always more effective to state facts than to use opprobrious epithets. If a physician be homœopathic, irregular, or ignorant, let the practitioner, when called upon, state exactly the facts and avoid generalities. If the facts be damaging, he destroys character far more effectively than he would by resorting to the school-boy's device of hard names, and, provided he speak the truth, need not fear a libel suit.

THE LATE PROFESSOR CARSON.

DR. JOSEPH CARSON, who for more than a quarter of a century held the important chair of Materia Medica and Pharmacy in the University of Pennsylvania, was a native of this city, and was born in 1808, having thus nearly completed his sixty-ninth year at the time of his death. He was a graduate, both in Arts and in Medicine, of the school with which he was afterwards so long associated as a teacher, receiving the degree of Bachelor of Arts in 1826, and that of Doctor of Medicine in 1830.

Shortly after his graduation, Dr. Carson served as Resident Physician in the Almshouse, then situated on Tenth Street, between Spruce and Pine Streets, the list of his contemporaries in that institution and in the neighboring Pennsylvania Hospital including the well-known names of Drs. Thomas Stewardson, Thomas Forrest Betton, George W. Norris, Edward S. Rivinus, William Keith, and William W. Gerhard. Upon the expiration of his term of service in the Almshouse, Dr. Carson made a voyage to Calcutta and Europe, leaving Philadelphia in October, 1831, and returning in July, 1832.

The first important public position held by Dr. Carson was the Professorship of Materia Medica and Pharmacy in the Philadelphia College of Pharmacy, to which he was elected in 1836, succeeding Dr. R. Eglesfeld Griffith, who removed from the city in that year and shortly afterwards accepted a chair in the University of Virginia. In 1849, upon the retirement of Dr. C. D. Meigs, who had held the post for more than ten years, Dr. Carson was chosen one of the Physicians to the Lying-in Department of the Pennsylvania Hospital, and, with his colleague Dr. Hugh L. Hodge, served until the final closure of the obstetric wards of that institution in 1854. Meanwhile, in 1850, by the transfer of Dr. George B. Wood to the chair of Theory and Practice of Medicine in the University of Pennsylvania, that of Materia Medica and Pharmacy had become vacant, and to this Dr. Carson was elected, after a close contest, in which his success was all the more honorable on account of the distinguished ability of his competitors.

As a teacher of Materia Medica, Dr. Carson had few equals and probably no superior. With the increased diffusion of pharmaceutical knowledge and the enlarged number of skilled pharmaceutists in our country (so that, at least in many of our States, every small village, even, has its well-appointed drug-store), the necessity for a practical knowledge of the Materia Medica on the part of the physician has, in a great measure, passed away; and teachers of this branch now properly devote less time to the consideration of the natural history and preparation of drugs, and are thus enabled to dwell more fully upon their physiological actions and therapeutic uses; but at the commencement of Dr. Carson's career as a professor, and indeed long afterwards, the state of things was very different, and a personal, practical knowledge of the physical characters of drugs in their crude state, as well as of the modes of preparing them for medicinal employment, was of the utmost importance to all physicians who were likely to be called upon to practise out of the limits of our principal cities. Those who remember Dr. Carson's lectures on Cinchona Bark, on Opium, on Cod-Liver Oil, and other specially important articles of the Materia Medica, will recall the intense, almost enthusiastic, interest which at such times the lecturer was wont to manifest in the subject of his discourse, an interest which could hardly fail to awaken some responsive feeling even in the most careless student, and even at that peculiarly somnolent post-prandial hour at which the doctor's lectures were generally delivered.

Dr. Carson's style as a lecturer was clear and methodical, but without any attempt at elocution. His systematic instruction was constantly interspersed with practical hints and brief references to cases which served to illustrate his didactic teaching and to impress upon the student's mind important facts which might otherwise have been forgotten. To his private pupils, his weekly examinations both upon his own branch and upon the Practice of Medicine proved most instructive, and none who had the good fortune to call him preceptor will hesitate to acknowledge their great obligations to him in this respect.

As would naturally be expected, Dr. Carson's profound knowledge of drugs

in all their relations, combined with his large experience in the Almshouse and Hospital, rendered him a most skilful physician, as well in general practice as in the special branch of midwifery. The present writer had it from Dr. Carson's own lips that he was at one time strongly tempted to devote himself particularly to obstetrics, having been urged to do so by the late Prof. C. D. Meigs, who, finding his immense midwifery business too laborious for his unaided strength, was beginning to look about him for a suitable assistant to work with and ultimately to succeed him in practice.

Careful in diagnosis and thoroughly versed in the pathology of disease, Dr. Carson excelled more especially in therapeutics. While by no means a polypharmacist, he well understood and justly placed great faith in the *combination* of remedies (too much neglected at the present day), and was thus often enabled to obtain favorable effects from medicines which, differently administered, had in the hands of others proved inefficient.

As an author, Dr. Carson was remarkable for the thoroughness with which he first studied out his subject, and the clearness with which he afterwards expounded it; but he was not a prolific writer, and his publications cost him too much care and labor to be either very many or very voluminous. His principal productions were his "Illustrations of Medical Botany," published in 1847 (a work of great beauty and merit, long since out of print); his editions of Royle's and of Pereira's works on Materia Medica and Therapeutics; a synopsis of his lectures in the University, which went through four editions; and the volume on which he spent many years of labor, and which he himself regarded as the work which would longest survive as a monument to his memory, his learned and well-known "History of the Medical Department of the University of Pennsylvania." He also published several lectures on the *modus operandi* of medicines and on emetics, an admirable study (in the form of a review) on the causation of puerperal convulsions, with several occasional papers, introductory lectures, addresses, etc. Dr. Carson was frequently urged to prepare a text-book on Materia Medica, and for many years looked forward to doing so; but the period never came when he could give the time and labor necessary for such an undertaking, and he died with his text-book unwritten.

Dr. Carson occupied many honorable positions which testified to the general respect and esteem with which his fellows regarded him. He had been President of the last National Convention for the revision of the Pharmacopœia, President of the Philadelphia County Medical Society, and Vice-President of the Academy of Natural Sciences; and was, at the time of his death, a Censor of the College of Physicians, a member of the Library Committee and a Curator of the American Philosophical Society, one of the Council of the Historical Society, a Manager of the Philadelphia Trust and Safe Deposit Company, etc.

Dr. Carson was a consistent member of the Episcopal Church. He was twice married, and has left a son and two daughters to mourn his loss. This is not the place for any consideration of his life in its private and domestic relations, but it may be permitted to the writer, who knew him well as preceptor, physician, and friend for twenty years, to say that those who only met him in his official capacities could form but an imperfect conception of the sterling merit of his character, and of the lovable gentleness of his disposition.

J. A., Jr.

A New Medical School is announced in New Albany, Indiana. It is intended "to supply a want long felt by the medical profession of Floyd County, Indiana;" also to prevent "the great loss that will accrue to medical science if the great professional talent" contained in New Albany be not engaged.

LEADING ARTICLES.

FUNCTIONS OF THE BRAIN.

No. 1.

THERE has recently appeared a book* of such importance and interest upon the brain-functions, that we propose offering our readers a sort of running commentary or *résumé* of it.

In studying the action of the nervous system, it is often very difficult to distinguish between reflex and conscious movements. If a drop of acid be put upon the thigh of a frog whose brain has been destroyed, it will try to remove it by rubbing with the foot of the same side; if this foot be amputated, the batrachian will attempt first to reach the acid with the stump, but, failing to do so, will take the other leg for the purpose. This looks very much like purposive, conscious action; that it is not so, however, is shown by the fact that the brainless frog, in water gradually heated, will be boiled without attempting to get out or manifesting signs of pain. Rising to the medulla, we find actions produced much more complex than those originating in the spine, and yet as undoubtedly reflex in their character. The young animal deprived of all its brain-centres above the medulla will not only breathe, but when the nipple is placed in its mouth will vigorously suck. Above the medulla is the mesencephalon,—the pons Varolii, corpora quadrigemina, and cerebellum. In this region originate movements in regard to which it is especially difficult to decide whether they should be considered reflex or voluntary. If a frog be deprived of its cerebral hemispheres, it will, as long as it is undisturbed, sit perfectly motionless. If, however, its resting-place be tilted, it will make efforts to regain its equilibrium. If put in water, it will swim to the surface, clamber up the sides of the vessel, and sit perfectly still; if the water be hot, its efforts to get out become frantic. If the toe be pinched, the frog leaps away, and, in doing so, takes care to avoid any obstacle in its path. If its back be stroked, it will croak lustily, so that a band of brainless frogs might be obtained whose guidable chorus of *βρεκεκεκεξ κοαξ κοαξ* would have delighted the heart of Aristophanes. Yet this frog, if undisturbed, sits forever motionless; surrounded by food and water, it touches not either; in the midst of plenty, in an abundance of liquid, it dries to a mummy; unlike Tantalus, refraining not because it is unable to reach what it desires, but because it desires not what it can reach. The fish, when its cephalic lobes are destroyed, becomes the embodiment of action,—rushing, the moment it is freed from the hand of the operator, through the water in a straight line, until it is arrested by the side of the vessel or is paralyzed by exhaustion.

The mutilated pigeon acts like the frog. It sits motionless in a profound forgetfulness, roused for the moment by a stimulus, but sinking into apathy when this is withdrawn. If food be placed before it, it perishes of starvation; if, however, the nourishment be put into its mouth, it swallows it, and in this way life may be maintained for months.

In the rabbit or guinea-pig there occur, after ablation of the cerebral hemispheres, movements, emotional cries, resistance to disturbance of equilibrium, and other phenomena similar or parallel to those which are produced in the lower vertebrates, but there is much more evident exhaustion; and when still higher mammals are operated upon, the shock is so great as to obscure the proper manifestations: nevertheless, it is plain that the independent activity of the lower centres exists in the higher as in the lower animals.

The movements exerted by the brainless animals are so complex that the first impression is that they must be dependent upon conscious sensation.

It has been universally acknowledged and is plainly the case that the complicated movements of breathing, smelling, sucking, etc., which originate in the medulla, and which are more or less under the control of the will, are often purely reflex. As the actions are so much more complex than those originating in the cord, it naturally suggests itself as a possibility that the still more complex acts originating in the mesencephalon are also reflex.

It is plain that all memory and all power of spontaneous movement are blotted out by ablation of the cerebrum. The movements are simply the immediate result of some irritation of a sensory nerve. The undisturbed frog is quiet because there is no irritation of his peripheral nerves. The fish in the water is in constant movement

*The Functions of the Brain. By David Ferrier, M.D. New York, George P. Putnam & Sons.

because the currents in contact with its sides furnish a ceaseless stimulus. The frog thrown into the water will, until he clambers out, swim as ceaselessly as the fish. Experiments upon the lower animals in fact do not enable us to decide as to the voluntary or involuntary character of these movements. All that can be deduced from them is a failure alike to prove the existence of consciousness or to demonstrate its absence. In man, however, pathological destruction of the crus cerebri on one side has in a number of cases allowed the survival of consciousness with separation of the cerebrum, so far as concerns one side of the body, from the mesencephalon. Under these circumstances there is absolutely no consciousness to tactile impressions upon the side of the body opposite the brain-lesion. Experiments upon monkeys have indicated a similar condition of affairs, and it would seem, therefore, that it must be acknowledged that no conscious sensation exists when the cerebral hemispheres are removed, that the actions of brainless animals are reflex in their nature. As shown by the facts already stated, the functions of the mesencephalon pertain to three things,—maintenance of equilibrium, co-ordination of locomotion, emotional impression. The maintenance of equilibrium involves the conjoint action of three separate factors: 1, a system of afferent nerves; 2, co-ordinating centre; 3, efferent tracts running to the muscle. The afferent nerves which have to do with equilibrium are in three systems: 1, organs of tactile impressions; 2, organs of visual impressions; 3, organs of auditory impressions,—the semicircular canals and their afferent nerves. A single experiment is enough to show the necessity of the tactile nerves. If, in the frog deprived of its cerebrum, the skin of the hind legs be removed, the animal at once loses its power of equilibration, and falls prostrate as soon as support is tilted. Vision is not in such close relations with equilibration as the tactile sense; still, there is much reason for believing that some influence is exerted by it. When one eye of a pigeon is suddenly put out, the bird spins for some time on its vertical axis. If a patient with paralysis of the external rectus of the eye attempt to walk with the healthy eye closed, reeling and giddiness become very marked. On the other hand, the power of the organs of hearing upon equilibration is most pronounced. The brainless frog loses entirely its equilibrium if the auditory nerves be cut, and the evolutions produced by wounds of the semicircular canals have long been the wonder of physiologists; indeed, these canals would seem to be a sort of spirit-balance for the system. On each side are six, or three pairs of them, each having an enlargement or ampulla on one end, in which is expanded the vestibular nerve. When disturbance of equilibrium occurs, the fluids in these canals of course undergo movement, and by impressions on the ampullary nerve regulate the equilibrium of the body.

The co-ordinating centre is probably the cerebellum. The experiments that appear to prove this are too well known to need repetition. The only valid objection is that which has been urged so forcibly by our townsman, Dr. S. Weir Mitchell, namely, that pigeons in which the cerebellum had been removed recovered after some months their power of co-ordination. Dr. Ferrier meets this with a very ingenious explanation. It is well known that in certain cases the will is able to replace reflex government, also that movements at first arising solely from the conscious will may, by repetition, become seemingly reflex, certainly performed without consciousness. Now, Ferrier believes that the pigeon recovers its co-ordination through a training of the muscles by the will, and thus becomes able to fly by directing attention to the various muscles concerned; the reason it tires so readily is the strain of attention necessary during the act. The negative argument in this case appears to be of value: if not in the cerebellum, where does the co-ordinating power reside? not in the pons, according to present knowledge; not in the corpora quadrigemina or in the medulla, still less in the cerebrum.

Destruction of the corpora quadrigemina and of the optic lobes, in the experiments of Dr. Ferrier upon monkeys, resulted, like those previously made upon other animals, in some disturbance of equilibrium, but no paralysis of co-ordination, and in the production of blindness and the suspension of emotional cries. As Goltz found that when, in decephalized frogs, the corpora quadrigemina are destroyed, croaking no longer occurs, and Vulpian discovered that in the rabbit the cries become mere disorders of respiration, it would seem that

these bodies are the seat of the origin of emotional cries, which is confirmed by the discovery of Ferrier that their electrical stimulation produces in monkeys a violent outcry. Such would seem to be the functions of the mesencephalon. We will hereafter consider the cerebrum.

CORRESPONDENCE.

New York, January 20, 1877.

To the Editor of the Phila. Medical Times:

DEAR SIR:—An important paper on "*The Proper Treatment for Lacerations of the Cervix Uteri*" was read at the December meeting of the County Medical Society, by Dr. Thomas Addis Emmet. It was supplementary to a paper which Dr. Emmet read before the same society two years ago, on "Laceration of the Cervix Uteri as a frequent and hitherto unrecognized cause of uterine disorder," and which has attracted a great deal of attention both at home and abroad. He had for a long time observed the fact stated in the above title, and up to the date of the reading of his first paper he had operated in about two hundred cases of lacerated cervix. Since then the operation had been performed a large number of times by others, and he had recently heard the complaint made in some cases that the procedure had not accomplished all that had been expected of it. This was due, he thought, both to the fact that entirely too much was often expected of it, and that the operation, as a rule, was not performed with proper attention to minute details, particularly as regards preparatory treatment, which is necessary in almost every instance. There is not infrequently present a subacute cellulitis of long standing, which must first be completely gotten rid of before the operation ought to be attempted. In order to effect this, nothing is so advantageous as large daily vaginal injections of hot water. Externally, on the seat of the induration, tincture of iodine or a small blister may be applied from time to time. This preparatory treatment may occupy from one to three months.

The pressure of the enlarged womb upon the tense broad ligament is often a source of irritation and trouble, and hence it is sometimes necessary to lift the uterus entirely off the floor of the pelvis, and place it in the position of anteversion, in which it is to be maintained by a pessary fitted to the parts with great care. In doing this there is danger of tilting the organ too far forward (and thus dragging upon the ligaments), and the comfort of the patient will be the best guide in the adjustment of the pessary. The gaping flaps will be found to be more nearly approximated when the uterus is anteverted. In laceration of the cervix it will usually be observed that the lips of the os are everted and eroded, and that there is cystic degeneration of the mucous follicles; the latter feeling like shot to the touch.

Though it is not necessary to puncture each one of these separately, the knife is to be freely used all over the surface of the cervix; and it is seldom that the loss of blood amounts to an ounce. Churchill's iodine is then to be painted over it, and the flaps are to be kept approximated by means of a cotton packing, to which a string should be attached for its removal after a few hours. This process is to be repeated until the cysts, as well as the erosion and congestion, have disappeared.

The parts having been thus fully prepared, the operation is now to be undertaken, in the manner described by Dr. Emmet in his former paper; and it will probably be completely successful in restoring the uterus to its normal condition, if the same care is observed during its performance and in the after-treatment. Dr. Emmet, in some instances, has found that after recovery from the operation the os and new canal have been too small, owing to the fact that he used to make the strip of undenuded tissue left to form the walls of the cervical canal of the same width throughout, without making allowance for the reduction of the size of the parts when the organ regained its normal condition. He therefore now makes the undenuded strip trumpet-shaped, and by this means the new canal formed is rendered of ample and sufficiently uniform size. For paring the surfaces of the flaps he prefers the scissors to the knife, as he can thus accomplish his end more expeditiously and with less hemorrhage. In order to control the bleeding, he formerly employed a loop of wire passed through a canula and encircling the parts. Later, he used a large watch-spring, with an écraseur ratchet; but he has now found that an injection of hot water, made just previous to the operation, will cause contraction of the vessels to so great an extent that such a contrivance is generally unnecessary. In performing this operation it is requisite to coaptate the denuded parts with great accuracy, as otherwise a ridge of cicatricial tissue might be left, which would probably cause as much trouble as the previous laceration. The female is never well as long as there is any cicatricial tissue about the cervix, as it is a constant source of irritation, and is one of the most frequent of all the causes of neuralgia. In passing the sutures, Dr. Emmet uses a short round needle.

After the operation, the patient is to be kept strictly in bed for two weeks, and the catheter or bed-pan should be used, as she ought not to even sit up in bed for ten or twelve days. (The bed-pan, Dr. Emmet thinks, is often of the most essential service to the female, and he says instruction in its use ought to be a

part of the education of every one of the sex.) A warm-water injection is to be employed on the third day, and in about a week the sutures are to be removed, with great care, lest the parts should tear out. The uterus is to be well kept up in position after the operation, as, otherwise, the objects for which it is undertaken may be defeated. In conclusion, Dr. Emmet expressed the opinion that lacerations of the cervix occur much more frequently than is generally supposed, and stated that he doubted whether any woman ever passed through her first confinement without a laceration of greater or less extent taking place. These lacerations usually heal up readily; not giving any trouble unless they reach to the vaginal juncture or involve the vagina to a certain extent.

Dr. Fordyce Barker remarked that he had been much astonished when this subject was first suggested to him by Dr. Emmet, but he frankly acknowledged that he was now a convert to his views; believing him entitled to the gratitude of the entire profession for calling attention to so important a subject, which had hitherto entirely escaped observation. He then described a case which Dr. Emmet had shown him before operation. The uterus was five inches long, and the cervix was much everted and eroded. He saw it again, after the operation, and could hardly believe that it was the same organ. It now measured barely two and a half inches, and the cervix looked precisely like that of a nullipara. There was no cicatricial tissue whatever present, and not the slightest apparent evidence that any operation had been performed. On the other hand, nature's cicatrices remain indurated, and with an irregular surface; and hence we can almost invariably tell whether a woman has borne children or not by the condition of the cervix. Like Dr. Emmet, Dr. Barker doubted whether any woman ever passed through childbirth without more or less laceration. He mentioned, however, that he now saw fewer of these lacerations in his gynæcological practice than formerly, and thought this was due to the fact that careful accoucheurs at present pay more attention to the treatment of patients after confinement than formerly. Great attention to details was necessary for the success of the operation. He had seen a case in consultation in which there was local and afterwards general peritonitis resulting from it, and endangering the patient's life for several days.

He was strongly of the opinion that there had been an old cellulitis present, which the surgeon had neglected to get rid of before attempting the operation.

Dr. Peaslee stated that in forty-nine out of fifty cases the laceration is on the left side (where there is but one laceration), and this is due to the large number of times that the head is in the first position. The diagnosis of the condition is sometimes by no means easy, and yet lacerations of the cervix are of the most frequent occurrence. During the five years that he attended at the Demilt Dispensary he saw a great many of them, but he did not know what they were until Dr. Emmet pointed out the condition and its true pathology. Barnes did not know them even now, and this he thought reprehensible in an authority who writes systematic treatises on obstetrics and gynæcology. Laceration of the cervix prevents complete involution after parturition, and not only produces hypertrophy of the neck, but is also a very common cause of sterility.

Dr. Pallin differed from Dr. Peaslee in thinking the diagnosis difficult. At his gynæcological clinic at the University, he had found the condition present in about forty per cent. of all the cases treated. The subject was first suggested to him by Dr. Emmet about ten years ago, and nine years since he published an article on lacerations of the cervix, in the *St. Louis Medical and Surgical Journal*. From this he now read extracts to show his treatment at the time of the labor (if the laceration was extensive), and also at a later period.

At the last meeting of the Academy, January 18, Dr. S. S. Purple, who has again been elected President, made his inaugural address. A large portion of it was devoted to the interests of the library of the institution, and in the course of his remarks he announced the gratifying fact that during the past year 1076 books had been added to it. About 300 of these were bequeathed to the Academy by the late Dr. John O. Stone.

The patient upon whom Dr. Sabine proposed to perform gastrotomy, as related last month, died the day after the operation was attempted. It is certainly well that the attempt was not persisted in, as it is extremely doubtful whether the stomach could have been found at all after the abdominal incision had been made. At the autopsy the organ was found greatly contracted, and tucked away up under the left lobe of the liver, to which it was bound by numerous and firm adhesions. During life, it had been supposed that the stomach was probably free from disease, and this opinion had been concurred in by various eminent medical as well as surgical authorities: yet it was found that more than three-fourths of its surface was one cancerous mass. Altogether, therefore, it was fortunate that the operation was interrupted at its very outset.

During the week just closing, two well-known New York practitioners have died, Drs. Hermann Althof and George Thompson. The death of the latter is peculiarly sad, as it was caused by the swallowing of a quantity of acid nitrate of mercury by mistake, and was attended with extreme suffering.

Dr. John T. Nagle, Register of Records of Vital Statistics, reports that during the year 1876, 23,744 births, 7099 marriages, 2290 still-births, and 29,211 deaths were reported to

have occurred in this city. Of this mortality, 15,239, or 52.17 per cent., were in tenement-houses (containing four families or more); 8207, or 28.10 per cent., in houses containing three families and less (including shanties); 247, or .85 per cent., in hotels and boarding-houses; 4768, or 16.33 per cent., in institutions; 270, or .93 per cent., not stated; and 480, or 1.64 per cent., in streets, rivers, yards, etc.

One of the most interesting departments of the statistics compiled by Dr. Nagle is that in reference to the deaths of the very aged. During the year, 105 persons died over 90 years of age. Of this number, 26 died at 90, 17 at 91, 12 at 92, 2 at 93, 4 at 94, 11 at 95, 5 at 96, 2 at 97, 5 at 98, 6 at 99, 7 at 100, 1 at 101, 1 at 103, 1 at 105, 2 at 106, 1 at 109, 1 at 110, and 1 death is reported at the advanced age of 112 years. Of the 105, 52 were born in Ireland, 32 in the United States, 6 in England, 9 in Germany, 1 in Scotland, 2 in Italy, 2 in the West Indies, and 1 in Denmark. Seven were negroes. PERTINAX.

REVIEWS AND BOOK NOTICES.

TABLETS OF ANATOMY AND PHYSIOLOGY. By THOMAS COOKE, F.R.C.S. (Eng.), M.D. (Paris), Assistant Surgeon to, and Senior Demonstrator of Anatomy at, the Westminster Hospital. New York, William Wood & Co.

These tablets consist of a series of paper-bound volumes of a few pages each, which aim successfully to give the salient points of anatomy and physiology in a compact and striking form. The entire list of those published comprises a score or more of subjects. We have received those on the anatomy of the eye and ear; cranial nerves; arteries of the head and neck, and of the limbs; and bones of the skull, face, and upper limb; also those on the physiology of the circulation, respiration, and animal heat, and on the general development of the embryo.

Each tablet is built up on one page, or a double page, with such mechanical variations of type and paragraph as to show at a glance a whole subject. The condensation is one both of facts and of language, and classification is well accomplished by grouping together things that are alike. The author, who is evidently a practical anatomist and an experienced teacher, shows a familiarity with the literature of journals and transactions as well as that of text-books. After a careful examination of these tablets, we are convinced that they are deserving of the high commendation which they have already received abroad. In London they are used in connection with classes of anatomy and physiology. Although, perhaps, not absolutely adapted to the teaching of particular chairs in American medical colleges, yet under the direction of a good examiner they might be made of great value to students. To the busy practitioner they offer a ready means of refreshing the mind. C. K. M.

THE ELECTRIC BATH: ITS MEDICAL USES, EFFECTS, AND APPLIANCES. By GEO. M. SCHWEIG. New York, G. P. Putnam's Sons, 1877.

This is a most suggestive book: the only difficulty is that its suggestions are to us such intricate pathways that we cannot tread them. In spite of elaborate descriptions of bath-tubs, disquisitions on batteries, apparatuses, etc., we are unable to make out definitely how the bath is taken. We guess from the text that during the bath the patient sits with his upper back and his feet each resting against a large carbon electrode. If this be so, why a different effect should be obtained than from a similar position with the water run off, we don't understand. If this be not the arrangement of the patient, what is it? We can't solve the conundrum. We find excellent therapeutic results reported as having occurred in divers diseases; but we are also told that the author has seen the electric current cause the absorption of extract of malt diffused through the water of the bath, with excellent results in anæmia. Extract of malt is chiefly glucose and nitrogenous compounds. Here another conundrum suggests itself. What can't a man see, who has beheld the human skin turned for a half-hour every day into a gastric mucous membrane by an electric current? What must be the nature of his optics? Reader, we give it up. Perhaps some of our ophthalmological friends can discuss the question.

EPITOME OF SKIN DISEASES, WITH FORMULÆ, FOR STUDENTS AND PRACTITIONERS. By TILBURY FOX, M.D., F.R.C.P., and T. C. FOX, B.A. (Cantab.), M.R.C.S. Philadelphia, Henry C. Lea, 1876. 16mo, pp. 120.

One of the joint authors of this little work is already known to the profession as the author of one of the most popular of recent English works on dermatology. Dr. Fox's style, though diffuse and often careless, is always agreeable, and not less so in this epitome than in his more ambitious writings. Perhaps this is not altogether advantageous in the present instance, since a more concise style would have permitted the introduction of more valuable material.

As it is, the work is one well adapted to the wants of the practitioner too busy or too lazy to study up the subject of dermatology thoroughly. We would, however, warn the student against reliance upon such an epitome as this. The arrangement (alphabetical) of the specific diseases, the confused and somewhat peculiar classification, and the mingling of popular and scientific terms, all obscure the subject, and are calculated, we think, to interfere with, instead of aiding, subsequent studies. The best part of the book is the first half, in which valuable advice is given regarding the study of cutaneous disorders. A. V. H.

GLEANINGS FROM EXCHANGES.

SUDDEN DEATH FROM EMBOLISM.—Dr. Fitz, of Boston, has had during the past two years an opportunity of observing the anatomical results of immediately fatal embolism in several instances, and under such circumstances as seemed to make it desirable to call renewed attention to this cause of death, already so well recognized.

The histories of these cases show that a marked feature is the sudden and unexpected nature of the attack, whether taking place during the progress of disease or in persons apparently in good health. Combined with this is the evident impossibility of furnishing any effectual relief from the distressing symptoms, except by the administration of anæsthetics, which in most cases represent merely a change in the agent eventually employed, as the evidence of carbonic-acid poisoning very rapidly becomes manifest.

That the employment of such agents may be recommended it is desirable that a relatively correct diagnosis should be made; and, although there are no symptoms pointing absolutely to embolism, there are certain suggestive ones. The comparative rarity of the occurrence in the experience of any one physician is practically likely to cause considerable doubt when the occasion finally arises, and a consideration of these symptoms becomes, therefore, all the more important.

After giving short histories of six cases, with running commentary, Dr. Fitz concludes as follows:

It may be stated that in general the symptoms of suffocation are considered as resulting from the prevention of the entrance of air into the lungs, from an obstruction to the pulmonary circulation, and from the removal of oxygen from the blood. In the differential diagnosis, in so far as it concerns the subject of this paper, it becomes therefore of importance to eliminate from the first two series the productive causes, and to combine such elements as may add positively to the diagnosis.

The suddenness of the conditions being their chief interest here, all those forms requiring time for their production may be disregarded, and there remain—

(1.) Closure of the greater air-passages or of a large number of small ones, from without or from within. (2.) Nervous lesions, particularly intracranial, affecting respiration and circulation. (3.) Obstruction to the pulmonary circulation from emboli, of blood and air particularly, fat being more gradual in its effects.

The first series may be eliminated by the physical and rational evidence of open air-passages.

When an intracranial origin of suffocation exists, the predominant early symptoms are those of cerebral anæmia, namely, pallor, relaxed muscles, disturbed hearing and vision, contracted pupils, fainting, and convulsions. Although dyspnœa may at times precede these symptoms, it is not usually of so severe a character as in the other series.

In favor of the embolic source of the disturbance is the history of an antecedent thrombus or of a disease of the heart likely to be associated with thrombosis. The primary brief disturbance of cerebral function is rapidly, at times almost instantaneously, followed by extreme dyspnœa, while later the symptoms of cerebral anæmia again become prominent.

Briefly, if in suffocation the symptoms of cerebral anæmia predominate, the source should be sought for in internal hemorrhage or in intracranial disturbance; if the thoracic symptoms are most prominent, the air-passages or the circulatory apparatus are to be questioned, and the former can most readily be excluded. The only positive evidence in favor of the latter is to be derived from the previous history of the patient.—*Boston Medical and Surgical Journal.*

ACUTE IDIOPATHIC PERITONITIS IN CHILDREN (*Medical Record*, January 13, 1877).—The following are the conclusions of a paper on this subject by M. Gauderons:

A variety of peritonitis is met with in children, which may be called acute, essential, or idiopathic peritonitis. This peritonitis is usually general, but in some few cases is circumscribed, a more or less extensive portion of the peritoneum being involved.

It affects little girls much more frequently than boys, but is not exclusively confined to them.

It is excited by exposure to cold, or by excessive muscular action, and is especially prone to attack children between five and twelve years of age.

It may terminate in suppuration; but, although the case is then very grave, it is not entirely hopeless. In fact, the pus may make its way out through the umbilical cicatrix, and in that case recovery may be looked for. It is evident from this that suppurative peritonitis is less dangerous in the child than in the adult.

Phlegmon of the abdominal walls, or subperitoneal phlegmon, is the affection with which it is most likely to be confounded.

ON THE RADICAL CURE OF HERNIA (*Medical Record*, January 13, 1877).—Dr. Julius F. Miner, of the Buffalo General Hospital, expresses himself succinctly and decidedly in regard to this operation. He says, notwithstanding the reports of successful cases, his opinion is still that in femoral hernia the operation is too dangerous to be justifiable; in umbilical hernia the congenital form usually disappears in after-life; and the acquired form occurs generally in elderly stout people, who

are not fit subjects for surgical operation, The operation in practice is confined to persons of the male sex; but it ought never to be performed except upon patients "who have been properly informed of its dangers, and who deliberately choose to incur them."

Nitric Acid Injections after Lithotrity.—The following case came under the observation of R. Harrison at the Liverpool Infirmary. Examination of the patient having revealed the existence of a rounded stone two and a quarter inches in diameter in the bladder, this was crushed a number of times, but the phosphatic deposit repeatedly formed again. Analysis of the urine, two days after crushing, on one occasion showed a very large proportion of phosphates. One day later, half a pint of tepid water containing two drachms of diluted nitric acid was injected into the bladder. The urine collected the day following contained nearly twice as much phosphatic matter, showing a marked solution of the stone to have taken place. The injections were repeated nine times after operating with the lithotrite. Under this treatment the patient made a good recovery, and left the infirmary quite well. Mr. Harrison says, "The use of the acid appeared to me at once to stop any further deposition of phosphates, and to facilitate the removal of the pieces as they were broken up by the lithotrite."—*British Medical Journal.*

MISCELLANY.

It has been discovered that the shell-fish *Murex trunculus*, which yielded the famous purple of Tyre, contains largely of indigotin. A red coloring-matter present accounts for the purple.

The spread of artistic pursuits among the English medical profession is very notable. At a recent conversazione of the Harveian Society there were oil-paintings, water-color drawings, and etchings by Sir Henry Thompson, Drs. Buzzard, Blandford, and Gilbart Smith, Messrs. Prescott Hewett, Seymour Haden, Lennox Browne, Evershed, Propert, and Orrock. A highly eulogistic notice of Dr. Evershed's works in dry-point and etching appeared in a recent number of the *Gazette des Beaux-Arts*, together with engravings of two of the most recent of his highly-finished plates. Even china has not escaped. At the conversazione, a new form of lustre-ware, of original design and novel material, was exhibited by Dr. Reginald Thompson.

Optical Delusion.—Take three differently colored wafers,—red, violet, and orange,—place them upon a large piece of white paper, in a triangular form, hold the paper in a strong light, and fix the eyes upon the wafers, gazing upon them steadily for two minutes; then turn them away from the wafers to a blank part of the paper, and you will see three spectral wafers, but the colors will be different: the red wafer will now be represented by a green one, the violet by a yellow, and the orange by a blue.—*The American Laboratory.*

Chloral Cream.—A French pharmaceutical journal recommends the following as an agreeable formula for the administration of chloral: Take of finely-powdered sugar, 100 parts; chloral hydrate, 5 parts; water, 15 parts. Dissolve the chloral in the water, and triturate with the sugar in a mortar. An aromatic flavor is then obtained by the addition of the artificial essence of pine-apple or the essence of peppermint.—*Lancet and Observer*, December, 1876.

A Warning to Good Husbands.—According to Dr. Bauduy, a woman had the desire to eat her husband's flesh. This impulse became so overpowering that she murdered him, ate a portion of the body, and pickled the remainder, that she might prolong the gratification of this peculiar impulse to eat a good husband!

Medical Qualification of Women.—Miss Edith Shove having applied to be examined at the University of London for a medical degree, legal opinion has been taken; and, in the opinion of the law officers consulted, women cannot be admitted to the University examinations for medical degrees, but the Senate may, if it think fit, with the approval of the Home Secretary, alter the regulations so as to allow women to come up for examination. —*Medical Press and Circular.*

Hydrophobia communicated by Non-rabid Dogs and Cats.—Apropos of the discussion now taking place in the leading daily papers, the *Veterinary Journal* relates a case recently brought before the St. Petersburg Medical Society by Dr. Moritz, of a boy who died with well-marked symptoms of hydrophobia six weeks after being bitten by a dog, the dog up to the time of the boy's death never having exhibited any signs of rabies. A similar case was communicated to Dr. Moritz by a colleague, of a boy who died hydrophobic after being bitten by a cat, the cat remaining to all appearances well. Dr. Severin had also met with a case of a child dying who had been bitten by a dog that continued well. He had inoculated rabbits with saliva, blood, and pus taken from this child, but without producing any results.

Ambrose Paré used to say of his patient, in simple faith, "I dressed him; God cured him."

Chief of the Bureau of Medicine and Surgery of the Navy.—Upon the retirement of Surgeon-General Joseph Beale, Chief of Bureau of Medicine and Surgery of the Navy Department, on March 3, it is stated that Surgeon C. J. Stuart Wells will be promoted chief of that bureau.

TETANUS; NERVE-STRETCHING.—In a case of tetanus which occurred in the Montreal General Hospital, Dr. Drake cut down upon the sciatic nerve and stretched it. The patient was then put upon chloral hydrate and calabar bean. The operation seemed at first to afford considerable relief to the patient; but after a time the spasms returned, and he ultimately died of lockjaw.—*Medical Press and Circular.*

THE *Allgemeine Medicinische Central-Zeitung* says that, according to the last census, to every ten thousand inhabitants of Berlin there appear to be 7.98 physicians, 0.66 apothecaries, 3.31 midwives; while in the whole kingdom of Prussia to a like number of inhabitants there are 7.39 physicians, 1.26 apothecaries, and 4.94 midwives.

THE memorial-day of the late Professor Traube, of Berlin, was on Sunday, December 10, when his successor, Professor Leyden, read an obituary address at twelve o'clock in the hall of the university.

NOTES AND QUERIES.

THERE is a *picture-impostor* operating specially among physicians. He deals in very fine photographs on paper boards 22 by 28 inches, medallion or circular centres, which he represents to be elaborate India-ink drawings by himself, which he exhibited at the Centennial, and which he offers at a reduced price, as he must close them out and return to London, etc. He is a smart, plausible, genteel little fellow, and thrills you with the beauty of his wonderful productions before he displays them.

He is small and slender, say five feet four to six inches in height, dark complexion, black eyes and hair, moustache and side-whiskers not heavy, hair curly, Jewish physiognomy, large Roman or aquiline nose. He no doubt moves rapidly from town to town, as he speaks familiarly of the prominent citizens in different States. He does up a place quickly by hiring a carriage. Look out for him. His $25 to $88 pictures cost but $1.25 to $2 each, and are published by Chas. Cooper & Co., of New York.

The Philadelphia police would be glad to hear of him from any source.

PHILADELPHIA, December 26, 1876.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

The notice of Homœopathy, in your number of December 23, has been brought to my attention.

I do not suppose my information is really desired, but it is due to the cause which, so long as I live, is likely to need defenders, to state the *facts* in relation to the subject of your article. Whether your readers are desirous to know them, whether it is politic to publicly state them, is not my province to decide, of course.

Indeed, I appreciate and would not augment the difficulty of the position occupied by the Old School faculty at Ann Arbor.

The *facts* are that the first class of the homœopathic college of the University of Michigan numbered twenty-four; the second numbers fifty,—an increase of over one hundred per cent.; the increase of the Old School department in the same time from its organization being only about sixty-eight per cent.

Secondly, the Detroit College (Homœopathy) was never, and is not now, recognized by the American Institute of Homœopathy, and is now defunct.

Thirdly, "President" Spranger and his colleagues are now seeking to make peace with the supporters of the present school.

Fourthly, about a dozen expect to graduate on March 28, none being candidates the first year. These, I need not say, are the equals of any similar number in the other school, if quizzes, etc., be a criterion; and hence not less qualified to judge of "ignorance, dishonesty, and half-truth," if such were truly any part of its teachings.

Fifthly, Canada is fairly represented among them, and will receive homœopathic reinforcement accordingly.

Sixthly (a fact, although a truism), to study "pitch" or any other subject, one must not fear defilement. The odium theologicum and the odium medicum are alike impervious diaphragms. The first is in disgrace among scientists. Can they *really* exalt the second with a good conscience?

Lastly, the "members of homœopathy" mentioned by you are, *most of them*, graduates of the Old School, and have *only* the diplomas of the University of Pennsylvania, the Jefferson and Pennsylvania Colleges, the University of New York, etc., etc., etc., to oppose to your unsupported assertion that they are ignorant and dishonest. May they not fairly retort to such public and personal allusions, *Et tu quoque?* Is "science" to such resources still confined?

The above communication was received without signature, and would therefore not have been published had its authenticity not been shown by the envelope, upon whose outside were printed the name and address of Prof. Morgan, of the Homœopathic Faculty of the University of Michigan. We are surprised that the author of it should in a medical journal attempt so transparent a fallacy as to compare the sentiments of regular physicians towards homœopaths to the *odium theologicum*. The regular profession is wedded to no theory and is as willing to learn from homœopathy as from "old women," Choctaw Indians, or any other source. Homœopathy is demonstrably false in its theory, and what truth there is in its practice most of us desire to learn and are learning. The bitterness of feeling which exists grows chiefly not out of a scientific non-agreement with homœopaths, but out of the personal knowledge of nearly every regular practitioner of medicine that a very large proportion of *homœopaths are dishonest, and do not practise what they profess.*

PHILADELPHIA, January 20, 1877.

DOCTOR WOOD:

DEAR SIR,—As I have read a good deal of "Maternal Impression" literature of late in the *Times*, I would like to add the following well-authenticated case, which I recently learned from one of my patients:

A lady during gestation sustained a fracture of the left humerus. The child in due time was born with the left arm shrivelled and deformed. The olecranon process (from what I learned) must have been wanting, as the arm could be bent far back, just as readily, in fact, as the natural motion in the opposite direction produced by the flexors. The arm was much shorter and smaller than its fellow. The child grew to robust manhood, and was one of our most prominent citizens; but at maturity the affected arm was not larger than a child's of two years of age; and so it remained through life. It was helpless, and upon its surface near its lower third a mark was visible. This corresponded with the position of the fracture in the mother's arm.

I have observed several similar cases of maternal impressions, and in most of them it was difficult to account for the phenomena on the theory of *coincidence*.

However, no less an authority than Andrew Combe, of Edinburgh, did not have much faith in maternal impressions.

Respectfully yours,

WM. MASON TURNER, M.D.,
1428 North Seventh Street.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 14, 1877, *TO JANUARY* 27, 1877, *INCLUSIVE.*

MCKEE, J. C., SURGEON.—Assigned to duty as Medical Director of this Department. G. O. 1, Department of Arizona, January 1, 1877.

GIBSON, J. R., ASSISTANT-SURGEON.—Assigned to duty at Fort McPherson, Nebraska. S. O. 5, Department of the Platte, January 12, 1877.

AINSWORTH, F. C., ASSISTANT-SURGEON.—Assigned to duty at Camp Grant, A. T., as post-surgeon. S. O. 1, Department of Arizona, January 2, 1877.

PRICE, C. E., ASSISTANT-SURGEON.—Assigned to duty at Alcatraz Island, California. S. O. 8, Military Division of the Pacific and Department of California, January 17, 1877.

WOOD, M. W., ASSISTANT-SURGEON.—Assigned to duty at Camp Robinson, Nebraska. S. O. 5, c. s., Department of the Platte.

ROSSON, R. L., ASSISTANT-SURGEON.—Assigned to duty at Camp Thomas, A. T. S. O. 1, c. s., Department of Arizona.

SAMUEL Q. ROBINSON, M.D., and WM. B. DAVIS, M.D. (approved candidates), appointed Assistant-Surgeons U.S.A., to date from January 9, 1877.

PHILADELPHIA, FEBRUARY 17, 1877.

ORIGINAL COMMUNICATIONS.

WRITERS' CRAMP: ITS SYMPTOMS AND TREATMENT.

BY GEORGE M. BEARD, M.D.,
New York.

Read before the New York Journal and Library Association, November 5, 1875.

PART II.—TREATMENT.

IT has been supposed that rest is all the treatment that writers' cramp needed; but patients may take long vacations,—weeks and months,—may fly to manual employments, and when they come back to the desk the evil spirit of disease comes with them.

Before the introduction of electricity into therapeutics, writers' cramp had been usually regarded as incurable and unrelievable; patients with this malady folded their arms and resigned themselves to destiny; but even now, with all our improved appliances, writers' cramp is not a pleasant disease to have in the family; like somewhat analogous affections, as wry-neck, facial spasm, or other local spastic diseases, it is hard to permanently cure when once it has got firmly seated.

The reasons why it is so obstinate are, that it comes on so stealthily that it becomes a habit before its character is suspected, and that it is kept up by the necessities of the occupation. And yet, under judicious and well-sustained electrical treatment, cases taken early are sometimes entirely cured, cases taken late are much helped, while a certain proportion are beyond all help. The methods of electrization that I employ are local and stable galvanization of the affected nerves and muscles; spinal cord, nerve, and muscle currents; mild faradization of the muscles, the electric brush, and now and then, when the nervous system is disturbed, central galvanization. I would suggest, also, that mild electrolysis of the numb or painful form might be tried: I have used this mode in sciatica, with apparently good effect. Dr. Poore, of London, has recommended rhythmical exercise of the muscles simultaneously with the electrization; but I have not tried this to any extent, and he has not proved the combination to have any special advantage over the various methods of electrization used alone; but there may be some advantage in some cases, and on theoretical grounds it might be advised.

Internally, the calabar bean has been recommended by Hasse. I have tried it in one case, and with pleasant results. It is generally better, though not always necessary, for the patient to abstain from writing for a few weeks or longer; and there may be cases where a radical change of business is imperative. Cases taken sufficiently early may find that a good vacation will be sufficient, and there are those who get along well by simply letting up a little, and in every possible way favoring their arm. Muscular exercise of various sorts is of value; it calls into play other muscles, and also makes the writing-muscles move differently from their usual routine. Just what kind of muscular training is best, I do not know. An editor of this city who was for a very short time troubled by symptoms that clearly pointed to writers' cramp was cured, so he tells me, by daily practising the art of paddling a canoe. The idea may arise whether there was anything in the exercise of paddling first one side of the canoe and then the other that was specially advantageous. It is certain that the man got entirely well, and is yet at work in his profession.

I am inclined to believe that some cases of writers' cramp, in the early stage, as I have described it, get well spontaneously, either with or without rest; and very often the patient does not know or suspect what his symptoms mean. I form this opinion from what has been told me by persons who are now well, but who at some time in their lives have suffered symptoms that must have been at least on the road to writers' cramp. Facial spasm, when chronic, is very obstinate, but all of us here know persons who have been troubled with annoying spasms of the orbicularis or other muscles of the face, more or less, for days and weeks, and got well before they had time to take treatment.

Dr. Althaus insists that the positive pole should be placed on the upper vertebræ, and the negative in the stylo-mastoid fossa, and that the reverse arrangement is not effectual. I have not been able to differentiate the effect of the poles as closely as this in writers' cramp, or, indeed, in any other disease. The "immediate relief from

disagreeable sensations in the hand and arm," of which Althaus speaks, I have found to follow all the varied methods of application of which I have spoken, and even cases that do not permanently yield are for the time made much easier.

In applications of this kind, the upper part of the spinal cord is traversed by the current, and also the sympathetic and pneumogastric; but the benefit in this affection is probably due to the action of the current on the cord.

The late President Felton popularized the notion that the use of steel pens caused writers' cramp, and this disease has even been known as "steel-pen palsy." The theory is, that the electricity of the body is conducted off by the steel: hence the enfeeblement of the arm. This theory is only a part of the general and widely popular notion that diseases of many kinds, or of all kinds, may be cured or brought on by keeping in or letting out the electricity of the body. We read in the papers, for example, that Commodore Vanderbilt declared that he owed his strength and long life to the fact that he had always worn woollen stockings and thus kept in his animal electricity. One year ago, a man called upon me to get my endorsement for a glass pedal or treadle for sewing-machines, claiming that the nervous and other symptoms that follow long working on these machines do not arise when the feet are kept on an insulator; and he brought me a number of favorable certificates from operators. During the past year, a number of papers written by physicians have appeared in the medical journals, claiming rapid cures of acute rheumatism by insulating the beds of the patients by putting the legs in tumblers or pieces of glass. In regard to these claims in general, I am unwilling to express a definite opinion until the investigations I am now carrying on are completed. The true way of studying claims of this kind is to take a number of cases—the more the better—that are obstinate to usual treatment, and, without letting the patient know what we are about, insulating the beds and watching the effects: in this way we can eliminate two great sources of error that vitiate half our therapeutical experiments,—viz., coincidences, and mind acting on body.

The claims of the sewing-machine attachment could be investigated by allowing a number of operators who have been injured by machines to use the glass pedal, deceiving them in respect to its object.

The special claim that writers' cramp may be relieved by using a rubber pen-holder does not seem to be sustained, several of my patients having made experiments of that kind without benefit. It is, however, possible that the old-fashioned flexible quills were easier on the writing-muscles than the stiff, unyielding steel or gold pen of modern days; and it may be that in this fact we may get a partial explanation of the frequency of writers' cramp in recent times. In my own experience, I am sure I have found relief from tiredness of the arm in writing, by resorting temporarily to the quill. An easy-gliding lead-pencil also affords relief after long use of the pen, as many sufferers find. A writing-master whom I know declares that the cause of writers' cramp is a wrong method of writing,—too much use of the hand, and too little use of the forearm. The method he teaches is to allow the hand to rest very lightly on the table, while the arm works backward and forward with a piston-like motion. Writing in the lap, instead of on a desk, I have found a real relief in prolonged literary work. I first made this observation on ship-board, on blockade during the war, where I whiled away the weary hours by writing in the only position in which writing was possible when the weather was rough,—that is, seated on the edge of the bunk, and holding an atlas in my lap, the ink-bottle being firmly secured. I found this method so easy and comfortable that I have since availed myself of it and have recommended it to patients. Among the mechanical contrivances that have been found of service is one described by Wales,* to which my attention was called by Dr. Cutler. It consists of a pen-holder firmly supported between two rings fitting on the index-finger and middle finger; by this arrangement the thumb is relieved entirely. Or there may be a thumb-piece and rings on the index-finger, and the pen-holder can be fastened between these. Or a common pen-holder can be tied to the index-finger by a ribbon. *Pressure* on the affected nerves has been tried: this may be accomplished by two splints applied accurately to the radial and ulnar sides of the hand and held together by an elastic band.

* A Practical Treatise on Surgical Apparatus, Appliances, and Elementary Operations. By Philip S. Wales, M.D., Surgeon U.S.N. Philadelphia, 1867, p. 275.

An elastic bandage on the arm has also given relief.*

A ball of hard rubber, and about the size and shape of a hen's egg, attached to the pen-holder, and held in the hollow of the hand, affords a leverage for the treacherous muscles, and is said to be of service in some cases.

Stromeyer (according to Romberg) treated with success a case of pianists' cramp, by subcutaneous division of the affected muscles. "As early as the fourteenth day after the subcutaneous division of the tendon of the flexor longus pollicis, the patient was perfectly able to resume his piano-forte playing, and also to write." Dieffenbach tried similar treatment on a number of cases, and failed.

The question whether a writers'-cramp patient should change his occupation is one of importance, and one which the physician must help decide. As a rule, in nearly all nervous diseases, if a man is in a calling requiring a variety of brain-work, he would do better to keep in that occupation, provided he is successful and happy in it. No class of people live so long, or are so free from grave disease, as the brain-working class; and even those who are somewhat weakly—who have, it may be, a tendency to some nervous disease,—a nervous diathesis—are generally better off when they live by brain than when they live by muscle; for brain, like muscle, is developed and strengthened by judicious and varied exercise, and, like the muscle also, it grows feeble under long disuse. We treat consumption by making our patients use their lungs, and by exercising in the open air; we treat flabbiness of muscle in children by well-ordered gymnastics: similarly, we should treat flabbiness of brain by agreeable cerebral toil. Even those who have a tendency to hysteria or insanity, or who are constitutionally neurasthenic, are less liable to develop these disorders, and more likely to overcome, in a measure, the tendency towards them, if they healthfully pursue a calling that demands exercise of the brain, than if they live by muscle alone, or remain idle. The general doctrine of the essential inherent healthfulness of brain-work was first advocated by me while a medical student, and experience in practice in the study of nervous affections has confirmed that view, and has also made clearer to me the various and complex causes which combine to make brain-working occupations favorable to health and longevity. I know of a number of instances of young men of delicate appearance, and not very good inheritance, who have entered professional life and grown strong thereby, work having been a kind of sanitary influence, and have already outlived their companions who started in life with far more capital of physical health, but in occupations that demanded little exercise of the mind.

Applying this principle to the subject at hand, writers'-cramp patients who are succeeding in professions, or in business, rarely need to change occupation: ease, rest, a habit of favoring the tired arm, a resolution to do all that can be done in the way of treatment, and after that to dismiss the matter from the thoughts,—that is the best prescription, and it is not inconsistent with frequent vacations, and, in certain crises, with prolonged rest.

I have now under my observation a clergyman who has been afflicted for many years with facial spasm. For five years he rested from his labors, and tried, without effect, various treatment; he is now and for some time has been engaged in regular clerical work, and, besides, he is a laborious author. His disease does not yield permanently, although it is very relievable by galvanic treatment; but he told me the other day that, without regard to treatment, he had been better since he had returned to his preaching than during his five years of rest.

Writers'-cramp patients who are doing purely clerical or copying work, that demands no exercise of brain or muscle, would do well to change to something better, if they can get it.

I have said that the early symptoms of writers' cramp sometimes suggest rheumatism or neuralgia. In the case of a former class-mate of mine, a lawyer of this city, this feature was so noticeable that even now, after he has recovered in the main from his difficulty, he sometimes doubts whether he had real writers' cramp. There was pain in the arm, and the pain was made worse by writing, more than by any other mode of motion; but there was no cramp and no numbness. The symptoms did not

* After the reading of this paper, a medical gentleman, whose name is not known to me, suggested that writers'-cramp subjects had sometimes found relief by using a sort of thimble, to which a pen was attached, on the end of the index-finger. The contrivance, I should judge, is somewhat similar to that which mediums, it is said, sometimes employ in writing messages from the spirits of the dead, on a slate under a table.

give way very readily to a short course of treatment, but in time he so far improved that he could use his arm in writing about as much as he chose, and at one time, as he tells me, while occupied with an important case, he wrote day and night, and no serious injury resulted.

A lawyer, of middle life, had spent a number of months in Europe. A few weeks after his return his right arm began to trouble him in writing, pain extending from the arm up to the junction of the deltoid. He was benefited by treatment, and kept on in his profession. I used galvanization of the cervical spine and spinal cord nerve-currents. The patient had always been healthy,—knew very little of sickness of any kind. In his case the trouble seemed to be excited by sudden entering upon work after long rest.

In the case of a prominent editor that I reported two years ago, the first symptom that drew his attention was numbness localized in the end of the index-finger. This numbness was persistent and ugly, and was always made worse by writing, and was followed, in a short time, by pains up and down the arm and forearm. The patient favored his arm as much as possible, employed a secretary to do his writing, began very early to take electrical treatment, injured his shoulder by a fall that kept him in the house for some time, and, as a result, perfectly recovered, and remains well, I believe, and is carrying on the duties of his editorial profession.

In the case of a distinguished surgeon of this city, whom I treated for a mild form of this disorder last year, there was decided benefit apparently from local galvanization and spinal cord, nerve, and muscle currents. At the same time there was a partial rest from professional labor, and a change, as usual in summer, to country life. In this case the chief symptom was tiredness and aching of the arm, extending up to the neck, always worse after much use of the arm in writing letters. For some time the malady had been coming on, but it was precipitated, so to speak, by a prolonged use of the arm in writing out some important document. Relief was obtained by writing in the lap. This gentleman has an unusually vigorous constitution.

Last year a stenographer, suffering from writers' cramp, was brought to me by Dr. McLean, of Elizabeth. The patient had been suffering several months already, but was yet hard at work in the duties of his calling. His custom was to take short-hand notes, and then copy them in ordinary writing,—just the kind of work to bring on writers' cramp. Aching and tiredness were his chief symptoms. Treatment relieved, but did not cure, for he was obliged to keep at his employment. He was forced to give up his copying and restrict himself to taking short-hand notes, which he found to be easier than ordinary writing; but in time even this wearied his hand. He was accustomed to use the type-writing machine, the principle of which is that the writing is done by the fingers striking keys, as on a piano. This is a very different motion from that required in ordinary writing, and for a time it was a relief; but in the course of weeks even that became somewhat fatiguing. This patient very likely would have recovered if he could have changed his business; for the temporary effects of treatment were always good.

The very worst case of writers' cramp that I ever heard of I saw in 1874, in Detroit, while attending the meeting of the American Medical Association in that city. The patient, a man between thirty and forty years of age, I should judge, was under the care of Dr. Brodie, of that city, at whose request I examined the case. I took no notes at the time, but the leading fact of the case was so prominent and unusual that it could not pass from memory. The sufferer had his forearm suspended, and the arm and shoulder were drawn backwards by firmly-contracted muscles that rose in lumps and caused terrible pain. The hand, forearm, and arm were useless, not only for writing, but for anything else, and the pain persisted even when at rest. Dr. Brodie had, I believe, cut some of the contracted muscles, in order to relieve the pain. The deformity and pain combined unfitted him for all occupation, and there was no hope in any treatment that had not already been tried. The patient was a clerk in a railway office when the disease appeared, and there was nothing peculiar, so far as I remember, in the early symptoms and history.

Mr. S., aged 41, a clerk, was a case of writers' cramp of a very obstinate kind. The symptoms were developed very slowly six years before I saw him, and at first he was relieved by resting the elbow in writing. Among the earlier symptoms were inability to make upward curves easily, and a tend-

ency to grasp the pen-holder tightly. He found it necessary to use a large pen-holder. This condition was attended by trembling and nervousness of the hand. There was no actual pain until the year 1874, when I began to treat him. During the year there was pain all through the hand, and it extended up to the neck. In 1872 he had noticed that carrying a parcel or small valise would tire the arm. At one time he stopped writing entirely, and took up gardening, and then came on pain, aching, and cramp in the left arm, although he had never written with the left hand. Since he has been under my observation there has been some spasm of the fingers, although he is yet able to write well, and to do a great deal of writing, a little at a time; but his handwriting has greatly changed in style, there being a decided lack of uniformity; for his index-finger or thumb is liable to slip on the pen-holder. He is troubled also with coldness of the hands and feet. Shortly after he commences to write, the trapezius and sterno-cleido-mastoideus become involved, causing the head to incline to the left side, resulting in pain for hours afterwards. He describes the feeling as if he were getting a stiff neck, or had been sleeping on a pillow too high for his head. He can write for a long time quite legibly, provided he has plenty of room, as both arms must be rested while writing, the weight of the upper part of the body depending upon the left arm: failing these conditions his writing becomes a mere scribble, looking as if written by another person.

This patient has never been benefited by treatment, although various methods have been employed on him. Even the persistent use of the electric brush, though very pleasant to the patient, does no permanent good. Temporary relief of the aching and weariness of the hand and arm is all that any of the methods can bring. Rest from writing and change of occupation have been equally ineffective. At one time I used the actual cautery without effect; I tried also injections of arsenic, and at another time injections of atropine, as suggested by Dr. Vance, but without effect.

It is possible that a free use of the actual cautery may be of service in this case. The applications should be made to the upper part of the spine, and repeated many times. In the case of a young man, a book-keeper, sent to me this summer by Dr. Budd, there was no pain in the arm, but much difficulty in writing. He had been troubled for five years, and no treatment, including cautery of the neck, had availed to remove the difficulty, although certain symptoms of cerebral exhaustion associated with the writers' cramp had been relieved. An exceptional fact in this case was that he could write more easily after he had been writing an hour or more than on first taking the pen in hand. The constitution of the patient was excellent; he had known little of sickness. He was obliged to continue in his occupation without vacation,—hence the benefits of treatment were in a degree neutralized; but local galvanization was of considerable service, although the greatest benefit seemed to come from the tincture of calabar bean in pretty large doses,—twenty to thirty-five drops. The sedative action of this remedy was quickly and most agreeably appreciated. As soon as any evil effects were realized from the remedy it was discontinued for a few days. In regard to the permanency of the results, I have not been able to learn.

Writers' cramp is very rare indeed in women. I have seen but one case in a woman, and that was complicated with local injury and, I suspected, reflex effects. This case, which I have elsewhere* reported in full, was a widow lady 39 years of age, referred to me by my friend Dr. A. W. Catlin. She sustained herself by hard copying, day and night, for a lawyer. She had for some time been troubled with symptoms of writers' cramp, when a needle was accidentally run into her right index-finger, which was followed at once by loss of power in the fingers, and in a week the forearm had become weak. There was anæsthesia and analgesia, diminution of volitional contractility, but not electro-muscular contractility. The dynamometer showed loss of power in the muscles. The case was pretty clearly one of writers' cramp, aggravated by and complicated with paralysis. After the injury, she found it so hard to write with the right hand that she acquired the art of writing with her left hand, and became proficient. I do not believe that in this case there would ever have been a need of treatment for the incipient symptoms of writers' cramp that appeared before the

* Beard & Rockwell's Medical and Surgical Electricity, second edition, p. 456.

accident if the accident had not occurred. The lady was quite nervous, inherited astraphobia, or a morbid fear of lightning, insomnia, and spinal irritation, and the probabilities are that, like nervous organizations in general, she would have broken down generally under hard writing before breaking down locally. I have stated already the general principle that the nervous and hysterical of either sex cannot usually write hard enough and long enough to get writers' cramp: they give way in the nervous system in general, become easily tired, and so are forced to rest. Women are far more nervous than men: hence the extreme rarity of writers' cramp among them. The consideration, also, that fewer women than men are engaged in systematic writing is of importance.

Romberg* makes the same observation of the rarity of this disease among women. He says, "Hitherto the writers' cramp has almost exclusively been met with in the male sex. I have only heard of a single instance occurring in a female."

The following case of sewing-women's cramp was observed at my class in Demilt Dispensary.

The patient, a woman aged 58, had for forty years been engaged in the occupation of sewing carpets. For five years she had been troubled with pricking and tingling sensations in both arms and hands, with cramps. The first thing noticed was a tender spot on the elbow, over the region of the ulnar bone. Sometimes there would be localized cold spots or regions on the arm, other portions remaining comfortable. The legs and feet were almost always cold. The anæsthesia of the hands was quite decided, so that she could not pick up a pin or any very small object. The right hand was much worse than the left; with the right she could not hold any heavy weight. There was spinal irritation the entire length of the spine. Usually felt worse in the morning.

The patient had been obliged to give up her work entirely. The history and symptoms pointed to over-use of the muscles concerned in the act of sewing. Her custom had been to sew very rapidly, and to work many hours, on a very difficult kind of work that required much muscular exertion.

The practical points that a study of writers' cramp in the manner presented in this paper suggests are these:

1. The symptom of *cramp* or *spasm* by which this disease is generally recognized belongs only to the latest and more serious stages, and it is accompanied and usually *preceded*, sometimes for months and years, by *pain*, *aching*, *coldness*, *stiffness* or *numbness* of the fingers, hand, forearm and arm, shoulders, and cervical and dorsal spine, which symptoms are brought on or aggravated almost exclusively by the act of writing, and in time, if neglected, may lead to the cramp or spasm.

2. The disease, either primarily or secondarily, is a central one, and requires a central as well as peripheral treatment.

3. It is most common among those of strong constitutions who do routine and copying work,—as clerks and lawyers; not so common among the nervous and hysterical, or original composers; and very rare in females.

4. If the symptoms are taken early, *before the cramp or spasm has set in*, or just as it begins to appear, and is properly treated by electricity, which is the main therapeutical dependence in this disease, in its varied methods of application, there may be a radical cure, and in some cases without a change of occupation. When the disease comes to be generally recognized by its incipient symptoms, it will be far less a reproach to our art than it now is, and could always be much relieved even when not permanently cured.

To those with whom, from long neglect of the symptoms, or from the necessities of occupation, or from both causes combined, there is no hope of perfect recovery, I am wont to offer the reflection that, after all, health is a luxury, not a necessity; neither for usefulness nor happiness is it indispensable. If the rest of the body be kept in fair working order, as it may be usually, we can endure even a crippled right arm.

* Nervous Diseases, vol. i. p. 320.

VACCINATION DURING THE PERIOD OF INCUBATION OF SMALLPOX, ILLUSTRATED BY CASES.

BY W. M. WELCH, M.D.,

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IN his article on "Smallpox" in Ziemssen's Cyclopædia of the Practice of Medicine, Dr. Curschmann writes as follows:

"Are we able to exert any influence on the disease in the early stage preceding the eruption? Is it possible in infected persons during the stages of incubation and invasion to cut short the disease or to modify its course? Many attempts have been made to answer these questions affirmatively, but as yet without much result. The first idea was vaccination, and this was employed by some in the ordinary way; by others, subcutaneous injections of vaccine lymph have been made, it is said, with good results (Furley, *Lancet*, May 25, 1872). I must, however, advise great skepticism regarding these assertions. Of the subcutaneous injection of lymph I have no experience; but that ordinary vaccination during the stages of invasion and incubation cannot stay the disease has been proved to me by chance observation and direct experiments. On the contrary, I have seen, in cases in which vaccination was practised after infection with variola, vaccine pustules and smallpox pustules develop side by side. It is, in my opinion, very doubtful whether vaccination can even render the course of the disease milder."

I also have no experience in the hypodermic use of vaccine lymph, and can say with Dr. Curschmann that I have frequently seen the vaccine vesicle and the variola pustules develop side by side, with no modification of the disease. This fact, so well established, should, I think, be regarded as proof that vaccine lymph introduced subcutaneously during the invasion of smallpox is incapable of exerting any remedial power over the disease. Among the facts demonstrated in the cases furnished below, one is that the prophylactic power of vaccination does not become manifest until the system has been brought fully under the influence of the vaccine disease, and that this does not take place before the maturation of the vesicle. This being true, it is then about as inconsistent with reason to use vaccine lymph subcutaneously as a curative agent in smallpox, as is the homœopathic practice of administering it by the stomach.

I cannot, however, indorse the unqualified statement of Dr. Curschmann, notwithstanding it is based upon his own experience,—namely, that vaccination during the stage of incubation of smallpox cannot stay the disease, nor even render its course milder. Among the cases furnished below may be found several striking examples of vaccination after exposure wholly preventing the occurrence of the disease; and also several examples of its power to modify the course of the disease. In order to obtain either of these results, it is, of course, necessary that the vaccination should not be too long delayed after exposure has taken place. The duration of the stage of incubation of smallpox has been found to be most frequently from nine to thirteen days. In the cases where I have been able to fix it definitely, I have found it to be about ten days in the larger proportion of them,—*i.e.*, the initial fever appearing on the eleventh day, and the eruption on the thirteenth after exposure. Now, if vaccination is performed shortly after the reception of the variola contagion, the vesicle, if it runs a typical course, will arrive at maturity before the time of the expected outbreak of the disease, and will, consequently, prevent its occurrence; or, if the protection should not prove complete, the course of the disease will certainly be very much modified. When neither of these results follows, my experience would lead me to believe that the vaccination is in some way at fault.

But, if the vaccine vesicle has not reached or very nearly reached its maturity, or, to be more definite, if the vesicle has not arrived at its seventh or eighth day of development before the outbreak of smallpox, no modifying influence may be expected from it. Not only may the vaccine vesicle and the variola eruption develop side by side, but the former may even arrive at maturity some days in advance of the latter without exerting any modifying influence over the course of the disease.

As illustrative of the foregoing remarks, I submit the following brief histories of fifty persons in whom vaccination was performed after exposure. Before doing so I would remark that the majority of these persons were exposed to the variola contagion before entering the Municipal Hospital, where they were observed, and that all of them were thus exposed after admission; and, also, that the vaccinations were primary ones in every instance. And I would call attention, particularly, to the results attending the vaccinations performed in the hospital, for they were all done by myself, and with virus known to be reliable. It is chiefly upon these results that the conclusions already expressed are based.

No. 1. *Perfect protection.*—An infant, æt. 6 months, suffering from a cutaneous disease (not smallpox), was sent to the hospital as a case of variola; vaccination after admission;

"took" well; remained in hospital nine days; enjoyed immunity from smallpox.

No. 2. *Perfect protection.*—A girl, æt. 17 years, suffering from measles, was sent to the hospital as a case of variola; vaccination after admission; "took" well; enjoyed immunity from smallpox.

No. 3. *No protection.*—An infant, æt. 5 months, was admitted without disease, in company with its mother, who had smallpox; vaccination after admission; "took" well; about seven days after vaccination the variola eruption appeared; disease not modified; death ensued.

No. 4. *No protection.*—A boy, æt. 14 years, admitted with variola; vaccination about five days previously to the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; recovery.

No. 5. *Partial protection.*—A child, æt. 14 months, admitted with varioloid; vaccination seven days previously to the appearance of eruption; "took," but not actively; disease only very slightly modified; recovery.

No. 6. *Partial protection.*—A girl, æt. 15 years, admitted with varioloid; vaccination eight days previously to the appearance of eruption; "took" well; disease only slightly modified; recovery.

No. 7. *No protection.*—A girl, æt. 10 years, admitted with variola; vaccination nine days previously to the appearance of eruption; apparently "took;" disease not modified; eruption confluent; death ensued.

No. 8. *No protection.*—An infant, æt. 7 months, admitted without disease, along with its mother, who had smallpox; vaccination after admission; six days subsequently the variola eruption appeared; the vaccine vesicle and the eruption developed side by side; disease not modified; death, preceded by convulsions.

No. 9. *No protection.*—A girl, æt. 23 years, admitted with variola; vaccination eight days previously to the appearance of the eruption; a retarded vesicle developed; disease not modified; eruption confluent; death ensued.

No. 10. *Perfect protection.*—An infant, age not recorded, admitted without disease, in company with its mother, who had smallpox; vaccination shortly before admission; "took" well; enjoyed immunity from smallpox.

No. 11. *Partial protection.*—A youth, æt. 18 years, admitted with varioloid; vaccination eleven days before the appearance of eruption; "took," though not in a typical manner; disease very much modified; recovery.

No. 12. *No protection.*—A girl, æt. 19 years, admitted with variola; vaccination three days before the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; recovery.

No. 13. *No protection.*—A boy, æt. 14 years, admitted with variola; vaccination three days before the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; eruption confluent; death ensued.

No. 14. *Partial protection.*—A boy, æt. 12 years, admitted with varioloid, at the first day of the initial fever, in company with members of the same family suffering from smallpox; vaccination seven days before admission, or nine days before the appearance of eruption; "took" tolerably well; disease very much modified; recovery.

No. 15. *No protection.*—A boy, æt. 10 years, admitted with variola; vaccination six days before the appearance of eruption; "took" tolerably well; disease not modified; recovery.

No. 16. *Perfect protection.*—A healthy, well-developed infant was born in hospital, December 13, 1871, of a woman undergoing an attack of smallpox; vaccination was performed on the 13th, 14th, 15th, 16th, and 17th; a small vesicle developed from the last insertion; remained in hospital twenty days; enjoyed immunity from smallpox.

No. 17. *No protection.*—A woman, æt. 31 years, admitted with variola; vaccination eight days before the appearance of eruption; "took," but not very actively; disease not modified; recovery.

No. 18. *No protection.*—A child, æt. 5 years, admitted with variola; vaccination five days before the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; recovery.

No. 19. *No protection.*—A girl, æt. 16 years, admitted with variola; vaccination nine days before the appearance of eruption; a vesicle very much retarded developed (about five days slower than its usual course); disease not modified; death ensued.

No. 20. *No protection.*—A girl, æt. 18 years, admitted with variola; vaccination four days previously to the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; death ensued.

No. 21. *Perfect protection.*—A healthy, well-developed infant was born twelve hours before admission, of a woman undergoing an attack of smallpox; vaccination immediately after admission; two insertions on the left arm; on the following day, two insertions were made on the right arm; both of the latter "took" well; remained in hospital twenty-six days; enjoyed immunity from smallpox.

No. 22. *Partial protection.*—An infant, æt. 10 months, admitted with varioloid; vaccination (judging from the appearance of vesicle) about one week before admission; the vesicle and the eruption developed side by side; disease was apparently somewhat modified; recovery.

No. 23. *Partial protection.*—A child, æt. 3 years, admitted with varioloid; vaccination nine days previously to the appearance of eruption; took well; disease modified; recovery.

No. 24. *No protection.*—A boy, æt. 13 years,

admitted with variola; vaccination seven days previously to the appearance of eruption; "took," but not very actively; disease not modified; recovery.

No. 25. *Partial protection.*—A child, æt. 5 years, admitted with varioloid; vaccination ten days previously to the appearance of eruption; "took" well; disease modified; recovery.

No. 26. *No protection.*—An infant, æt. 7 months, admitted with variola; vaccination three days before the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; death ensued.

No. 27. *No protection.*—A youth, æt. 17 years, admitted with variola; vaccination eight days previously to the appearance of eruption; three retarded vesicles developed; disease not modified; recovery.

No. 28. *Perfect protection.*—An infant, æt. 10 months, admitted without disease February 18, 1872, in company with its mother, who had varioloid, which disease was advanced to the fourth day of eruption; continued to feed from its mother's breast; vaccination was performed immediately after admission; "took" well. February 16, two convulsions; no further sickness; remained in hospital fourteen days; enjoyed immunity from smallpox.

No. 29. *Almost perfect protection.*—An infant, æt. 5 months, admitted without disease, in company with its mother, who had smallpox, and from whose breast it was nursing; vaccination after admission; "took," but not very actively; on the eighth day after vaccination the variola eruption appeared, consisting of only a few papules, which entirely disappeared in a day or two; remained in hospital twenty-six days, at the expiration of which time the child was suddenly seized with convulsions and died. (The convulsions were evidently not the result of smallpox.)

No. 30. *Partial protection.*—An infant, æt. 1 day, admitted without disease, along with its mother, who had just given birth to it prematurely while undergoing an attack of smallpox; vaccination on the same day of its birth; "took" well; nine days subsequently a very light variola eruption appeared; disease modified; during convalescence was seized with convulsions, and died.

No. 31. *Perfect protection.*—A healthy, well-developed infant was born in hospital, April 4, 1872, of a woman who did not have smallpox, but was admitted to take care of a child sick with that disease. The infant was vaccinated both on the 5th and the 6th; four insertions were made, all of which "took" well; remained in hospital twenty-nine days; enjoyed immunity from smallpox.

No. 32. *No protection.*—A child, æt. 3 years, admitted with variola; vaccination four days previously to the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; death ensued.

No. 33. *Almost perfect protection.*—An infant, æt. 1 month, admitted without disease, in company with its mother and other members of the family, who had smallpox; vaccination after admission; two insertions were made, both of which "took" well; seven days after the vaccination a slight variola eruption appeared, consisting of only three or four small vesicles, which speedily disappeared; all the other symptoms of the disease were also exceedingly slight; in hospital only ten days (counting from the first appearance of eruption).

No. 34. *Partial protection.*—A child, æt. 10 years, admitted with varioloid; vaccination ten days before the appearance of eruption; two insertions were made, both of which "took" tolerably well; disease modified; recovery.

No. 35. *No protection.*—A child, æt. 2 years, admitted with variola; vaccination seven days previously to the appearance of eruption; "took," though not in a typical manner; disease not modified; death ensued.

No. 36. *Perfect protection.*—An infant, æt. 9 months, admitted without disease, in company with members of the same family suffering from smallpox; vaccination after admission; four insertions were made, all of which "took" well; remained in hospital fourteen days; enjoyed immunity from smallpox.

No. 37. *No protection.*—A child, æt. 6 years, admitted with variola; vaccination ten days previously to the appearance of eruption; a retarded vesicle developed; disease not modified; death ensued.

No. 38. *No protection.*—A child, æt. 9 years, admitted with variola; vaccination eleven days previously to the appearance of eruption; a retarded vesicle developed; disease not modified; recovery.

The last two cases were members of one family; they had both been vaccinated at the same time, and, doubtless, with the same virus.

No. 39. *Perfect protection.*—A child, æt. 1 year, admitted without disease, in company with members of the same family suffering from smallpox; vaccination after admission; two insertions were made, both of which "took" well; remained in hospital twenty days; enjoyed immunity from smallpox.

No. 40. *Perfect protection.*—A child, æt. 2 years, admitted without disease, in company with members of the same family suffering from smallpox; vaccination after admission; two insertions were made, both of which "took" well; remained in hospital nineteen days; enjoyed immunity from smallpox.

No. 41. *Partial protection.*—A child, æt. 3½ years, admitted without disease, in company with members of the same family suffering from smallpox; vaccination after admission; two insertions were made, both of which "took" well; five days after vaccination the variola eruption appeared; disease apparently modified; recovery.

No. 42. *Partial protection.*—A girl, æt. 18 years, admitted with varioloid; vaccination eleven days previously to the appearance of eruption; "took," but vesicle was somewhat retarded; disease only slightly modified; recovery.

No. 43. *No protection.*—A girl, æt. 10 years, admitted with variola; vaccination five days previously to the appearance of eruption; the vesicle and the eruption developed side by side; disease not modified; recovery.

No. 44. *No protection.*—A child, æt. 7 years, admitted with variola; vaccination eleven days previously to the appearance of eruption; apparently "took" well; disease not modified; death ensued.

No. 45. *No protection.*—A child, æt. 5 years, admitted with variola; vaccination nine days previously to the appearance of eruption; apparently "took" well; disease not modified; death ensued.

No. 46. *No protection.*—A child, æt 2½ years, admitted with variola; vaccination ten days previously to the appearance of eruption; apparently "took" well; disease not modified; death ensued.

The last three cases were from one family. They had all been vaccinated at the same time, and, doubtless, with the same virus.

No. 47. *No protection.*—An infant, æt. 6 months, admitted with variola; vaccination nine days previously to the appearance of eruption; apparently "took," but not well; disease not modified; death ensued.

No. 48. *No protection.*—A child, æt. 20 months, admitted without disease, in company with members of the same family suffering from smallpox; vaccination after admission; four days subsequently to vaccination the variola eruption appeared; the vesicle and the eruption developed side by side; disease not modified; recovery.

No. 49. *Almost perfect protection.*—An infant, æt. 3 months, admitted without disease, in company with members of the same family suffering from smallpox; vaccination after admission; three insertions were made, all of which "took" well; eleven days subsequently to vaccination, a very light variola eruption appeared, consisting of about a dozen small vesicles which did not advance beyond the vesicular stage; the general health of the child was scarcely at all affected.

No. 50. *No protection.*—A girl, æt. 17 years, admitted with variola; vaccination nine days previously to the appearance of eruption; apparently "took" well; disease not modified; recovery.

An analysis of the above cases shows as follows. Of the fifty cases, ten were perfectly protected, three almost perfectly protected, eleven partially protected, and twenty-six unprotected. Of the eleven partially protected, one died, and that was an infant only a few days old, and of premature birth. Of the twenty-six unprotected, fifteen died: a death-rate of 57.69 per cent. Among those partially protected, the average length of time between the vaccination and the appearance of the variola eruption was 8.9 days; among those in which there was no protection it was 6.9 days.

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TRANSLATIONS.

Transfusion of Blood.—Dr. Monocq, in a work recently laid before the Académie de Médecine, gives a history of the operation and adds some original observations. Impressed by the dangers resulting from the incipient coagulation of the blood which passes from the containing-vessel into the injecting apparatus, Monocq has attempted to devise some means by which the blood can be received from the vein directly into the latter. Monocq's apparatus (a description of which has been, we believe, published before.—Trans.) consists essentially of a pump, into which the blood is received directly from the giver's vein and forced into the vein of the patient. Monocq gives an account of various cases treated successfully by this method, and the committee of the Academy appointed to examine his work credit him with having aided the advance of science in this direction, while not endorsing his views as regards the inferiority of defibrinated blood. Monocq, in fact, asserts that the mechanical process of whipping the blood to deprive it of its fibrin injures at the same time the vitality of the red corpuscles and sets free certain important volatile principles. Defibrinated blood, according to Monocq, has ceased to be blood at all, and has become a liquid incapable of stimulating the tissues or of serving for nutrition. The committee do not agree with him on this point. It seems to them that the defibrinated blood is still almost normal, since, excepting the proportion of fibrin removed, it preserves the relative amounts of its normal constituents, all its globules, all its serum, with the albumen and the plasma from which may be reconstituted the small quantity of fibrin lost. In the opinion of the committee, it is of considerable advantage to operate with defibrinated blood, both on account of the

smaller danger of formation of emboli and also because it is not necessary to use the same haste. So far as apparatus is concerned, the committee believe it possible to use much simpler apparatus than has heretofore been employed, and suggest further investigations in the use of defibrinated blood.—*Bull. de l'Acad. de Méd.*, 1876, p. 1125. X.

The Use of Atropia in Epilepsy.—Among the various remedies which have been tried in epilepsy, atropia long ago found a place. For some reason or another it fell out of use until recently, when Dr. Svetlin has recommended it once more to the notice of the profession. Atropia in small doses diminishes reflex action, and should consequently antagonize that reflex spasm of the vascular centres which is the proximate cause of the epileptic attack. Heretofore atropia has been given in increasing doses and in the form of solution. Dr. Svetlin, however, uses only minute quantities and administers it in pill form, believing the therapeutic effect of the drug given in this form equally decided, while toxic symptoms are not so likely to appear. Dr. Svetlin suggests the following formula: ℞ atropiæ sulph., 0.05 grm. (gr. $\frac{8}{10}$); pulv. et ext. glycyrrhizæ q. s. ut fiat pil. no. 50. Sig., one pill daily. This may be given week in and week out, since in this dose the drug does not bring on any uncomfortable symptoms. — *Wien. Med. Presse*, December 10, 1876, p. 1612. X.

The Functions of the Corpora Quadrigemina.—Dr. Kohts (*Virchow's Archiv*, August, 1876), as a result of his investigations (given in detail in the original article), draws the following conclusions: 1. The centre for the maintenance of equilibrium, upon which the exact co-ordination of parts depends, is, in the case of frogs and fowls, to be placed in the lobi optici, which correspond to the corpora quadrigemina of the higher animals. 2. The posterior corpora quadrigemina are to be regarded as the centres of co-ordination, since injury to these gives rise to irregular complicated movements. 3. It is understood that the disturbance of the muscular sense (ataxy), in case of isolated injuries of the corpora quadrigemina, is frequently dependent upon lesion of the habenulæ, which, according to Meynert's researches, serve as reflex conductors and take their origin from the thalamus and corpora quadrigemina. X.

Phosphide of Zinc.—A writer in the *Revue de Thér. Méd.-Chir.*, No. 22, 1876, describes the discovery of this compound, and its employment in medicine. He says that pills containing 8 milligr. ($\frac{1}{8}$ grain), representing 1 milligr. ($\frac{1}{60}$ grain) phosphorus, may be taken without producing any untoward effect, excepting belching of alliaceous air. Two pills may generally be given daily upon a full stomach, increasing the amount gradually until four pills are taken daily. MM. Vigier and Currie propose the following formulæ: ℞ zinci phosphid., gr. xiiss; pulv. glycyrrhiz., gr. iii; syr. acaciæ, gr. xiv. M. Ft. in pil. no. 100. To be silver-coated. These pills each weigh $\frac{1}{2}$ grain, and contain $\frac{1}{30}$ grain theoretical phosphorus, and $\frac{1}{60}$ grain of active phosphorus. Another formula is for the following powder: ℞ zinci phosphid. (in fine powder), gr. vj; pulv. amidou, ℈iv.—M. Divide into fifty packages, each of which contains $\frac{1}{60}$ grain of active phosphorus. X.

Albuminuria produced by the External Application of Tincture of Iodine to Infants (Simon and Reynard: *Société de Thérap.*, séance du 6 Mai, 1876).—Sixteen children who suffered with favus were treated by these observers with local applications of iodine and glycerin, and in a short time, in addition to the usual symptoms of iodine-intoxication, iodine was found in the urine of all of them, and in that of four there was a noticeable amount of albumen. When the use of the iodine was discontinued the albuminuria ceased in a few days. In order to arrive at greater certainty in the matter, iodine was painted on the chest of four scrofulous children whose urine was entirely normal. In a few days iodine and albumen appeared in the urine, to vanish again when the application of the tincture was discontinued. The unsuitability of these applications to those who suffer from renal affections, more especially morbus Brightii, is known, and Gubler has called attention to the fact that iodine causes hyperæmia of the kidneys and favors the occurrence of albuminuria. W. A.

The *British Medical Journal*, Nov. 1876, says that the London Homœopathic Hospital, which a few years since contained sixty-five beds and was filled to overflowing, now contains but twenty-six patients.

Dr. J. L. Vogel commends monobromide of camphor most highly in spermatorrhœa.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 17, 1877.

EDITORIAL.

THE GREAT UNPAID.

UNDER the above caption the *Medical Examiner* of London recently discussed the question of unpaid professional labor in the great metropolis. The problem, although ever recurring, is of such vital interest that it fails to become hackneyed. The abuse has not grown in this country to the enormous proportion reached abroad, chiefly because we have no centres of population equal to London; and it is in the centres rather than in the rural districts that unpaid medical labor is so popular with both the laity and the profession, with both recipient and giver. According to the figures given, there are treated annually in London without charge 1,063,000 patients. Even if this be reduced one-half, one person out of six in the metropolis is a charity patient. The *Examiner* calculates the number of hours of service at 57,200. If such service were estimated at what was formerly the legal value of a physician's time in this city, the amount would approximate $300,000. It must be borne in mind, also, that this calculation does not take into account the very large number of unpaid visits given privately by physicians. Figures are wanting to enable us to estimate with accuracy in this city, but there is very little doubt that the unpaid labor, in public and private service, given by the profession amounts to at least one-sixth of all performed. The profession certainly more than lives up to the requirement of the Jewish law, which called for a tenth as a tithe.

IN a late issue the editor of the *Medical and Surgical Reporter* charges, partly by statement and partly by direct implication, the editor of this journal with writing homilies upon fairness in reviewing, and then, because his own book was unsuccessful, spitefully and maliciously reviewing that of Dr. Napheys, although a previous edition had been praised in the *Times*, and presumably by him. Such an attack is rarely worth the notice of an honest man; but the adroitness with which some facts are woven together and others are suppressed in order to produce a false impression warrants the following statements. The treatise of Dr. Wood has been pecuniarily very successful, nearly five thousand copies having been sold in a little over two years; the scope of Modern Therapeutics is such that the two books do not come into competition; the work of Dr. Napheys was never previously reviewed in this journal since the present editor has had control of it; in the review which excited the attack it was directly stated that the most indefensible thing—the misrepresentation of the views of those quoted—in Dr. Napheys's book was apparently the work of the present editor, Dr. Brinton. These facts, except the mere number of copies sold, are matters of such common knowledge that it is scarcely conceivable that they were not known to the editor of the *Medical and Surgical Reporter*.

LEADING ARTICLES.

RECENT PROGRESS IN THE TREATMENT OF VENEREAL DISEASES.

II.—SYPHILIS.

SOME idea may be formed of the activity of writers in the department of venereal diseases when it is stated that, according to the "digest of literature" contained in the *Archives of Dermatology*, there were published during the past year no fewer than one hundred and eighty-six papers on the subject of venereal diseases alone; and this in the current periodicals, besides numerous monographs and complete works. Of course, much of what is

published is, for various reasons, unprofitable; but, eliminating that which is old or useless, there remains a quantity of good work done in this direction which must aid greatly in enlarging the sphere of our knowledge.

The scope of this article will confine attention to those papers which relate to the treatment of syphilis; and we cannot do better than begin with a review of the recent lectures of the veteran Sigmund, "On Recent Additions to the Therapeutics of Syphilis."*

Prof. Sigmund gives an account of the new remedies, internal and external, employed in the Vienna General Hospital during the past ten years, together with new modifications in the employment of old ones. Among the new remedies which were made use of may be mentioned carbolic and salicylic acids, iodoform, and oleate of mercury. Among new methods were suppositories of ung. hydrarg., the combination of chloride of sodium with corrosive sublimate, inhalations of the latter, the subcutaneous injection of several preparations of mercury, and, finally, the combination of frictions with ung. hydrarg. and baths.

Carbolic acid has been found to be useless as an internal remedy, while its continued employment gives rise to gastric disturbance. Externally, for cleansing purposes, it has proved, in Sigmund's hands, very useful, especially in profusely suppurating ulcers. The solution advisable for this purpose contains one part of carbolic acid to one hundred of water. Still more diluted, it may be employed for washing out the nasal cavity in ozæna and also for cleansing the vagina. The experience of the present writer does not bear out the statement above made regarding the efficacy of carbolic acid in suppurating sores, other applications, such as nitrate of silver and liquor sodii chlorinat., having been found of use when carbolic acid has entirely failed. Sigmund also recommends the occasional employment of this remedy in its full strength as a caustic. Salicylic acid has been used in the same manner as carbolic acid, and with similar results.

Bisulphide of carbon has recently been recommended by Guillaumet† in the local treatment of ulcerative syphilis. It is said to cause rapid cicatrization. The following formula possesses the advantages of freedom from the offensive odor which is one of the chief objections to the use of this agent: ℞ carbon. bisulphid., ʒxvj; tr. iodini, ʒiv; ess. menth. virid., gtt. xvj.—M.

Iodoform, so extensively employed for a time, and, in fact, still somewhat generally used in chancroid, finds but little employment in syphilis. Internally it has proved absolutely useless. Externally its offensive odor and the pain aroused by its application are serious objections to its use. It is said, however, that by mixing the powdered iodoform with tannic acid its application may be rendered painless. It is said to be of excellent service in condylomata, and desiccates the pointed variety, so that they are readily rubbed off.

Oleate of mercury, employed in frictions, offers, according to Sigmund, no advantage over ung. hydrarg., excepting lack of color, so that it does not show upon the skin. Van Buren and Keyes,‡ however, consider oleate of mercury the best preparation for the purpose of inunction. According to these authors, it may be used in three strengths, five, ten, and twenty (sometimes thirty) per cent. of the peroxide of mercury combined (chemically) with oleic acid. The five per cent. preparation resembles linseed oil, the twenty per cent. is thick, pasty, and yellowish. Twenty per cent. oleate irritates the skin, but not so much as ung. hydrarg.; it is much more cleanly, and seemingly capable of much more thorough and rapid absorption. Personal experience in the use of the five per cent. oleate as a local application in palmar and plantar syphilis has led to a high appreciation of the value of this preparation by the writer.

Suppositories of ung. hydrarg. are enumerated by Sigmund among the new methods of using mercury, and this form of administering the drug has also been employed by other observers. There seems, however, to be no particular benefit derivable from it, and the suppositories also possess the disadvantage of exciting intestinal catarrh. The combination of chloride of sodium with corrosive sublimate has been administered by the stomach and also hypodermically, but appears to possess no pecu-

* Ueber neuen Behandlungsweisen der Syphilis, Wiener Klinik, Oct. 1876.

† Du Traitement des Ulcérations chroniques, etc., Paris, 1876.

‡ A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis, New York, 1874.

liar advantages. Corrosive sublimate dissolved in collodium in the proportion of 1 part to 16–18 has been found very useful as a local application in palmar and plantar syphilis. The parts should be well cleansed with soap and water in the morning, the solution then applied with a camel's-hair pencil, and allowed to remain until evening. It is then washed off with soap and water, and the parts are energetically rubbed with the following ointment: ℞ hydrarg. chlor. corros., gr. xvj; hydrarg. ammoniat., ℈iv; axungiæ porci ad ℥i.—M. Gloves and socks are to be worn over-night. Where there is much infiltration and scaliness, a mixture of empl. saponis and empl. hydrarg. may be substituted for the previous preparation. It is to be kept applied night and day, only washing and pencilling with the collodium as above. This procedure, Sigmund says, will soften the oldest and hardest scales and infiltration.

Alcoholic and ethereal solutions of corrosive sublimate in various strengths, when used with circumspection, form a certain and rapid means for the cauterization of papules and fissures, as well as erosions of the mucous membrane both of the mouth and pharynx, particularly the tongue and lips. Used carefully, these preparations are superior to nitrate of silver. Inhalations of the corrosive sublimate as a local remedy in pharyngeal and laryngeal troubles are valuable; as a means of influencing the system at large this method is useless, since the inhalations, even when much diluted, are not tolerated for any length of time.

The treatment of syphilis by means of hypodermic injections of mercury was introduced by Lewin nearly ten years ago. The method was at first received with enthusiasm, but the many drawbacks to its employment counterbalance, in the opinion of most syphilographers, the advantages gained by its use.

The advantages claimed for the hypodermic method are: the rapidity with which the system comes under the influence of the mercury, the applicability of injections in cases where the drug cannot be introduced by the mouth, and the fact that by this method the stomach is left undisturbed, so that tonics, etc., can be simultaneously administered. The objections are the pain of the operation itself, which causes many patients to refuse it entirely, and, moreover, the subsequent formation of indurations and abscesses, sometimes as large as a walnut. These, according to the testimony of numerous observers, are extremely common, even when every precaution is taken. The method may perhaps be employed with advantage in army practice and in certain hospitals where the patient is completely under the control of the physician; but it has not found, nor is it likely in the future to find, extended employment in general practice.

The combination of hygienic measures with specific treatment has of late years been more frequent than formerly, and those particular measures included under the term hydro-therapeutics are receiving increased attention. It is in those cases where syphilis is complicated by various "taints," as scrofula, tuberculosis, etc., that health resorts and hydro-therapeutics prove most beneficial. In connection with baths, inunction has very usually been practised, and, although some allusion has been made to this method, it seems desirable that something more should be stated regarding our present knowledge of this method of administering mercury.

Though inunctions have been practised in the early history of syphilis and from time to time until the present, yet this method of cure had fallen into abeyance when Sigmund took it up and brought it once more prominently before the profession. His present method of conducting the treatment by inunction is as follows. The patient takes a hot bath in the morning; then, after a rest of one to two hours, the frictions are made in the usual way, covering a given portion of the body and limbs each day in turn, so that the skin of no one locality shall be so frequently rubbed as to be sore. Panas* thinks that the rapidity and certainty with which mercurial frictions accomplish their object far outweigh the alleged disadvantages of the procedure. According to Panas, all mercurial salts taken by the mouth are decomposed in the alimentary canal, and undergo further disorganization in passing through the liver. In the friction treatment, however, the mercury passes directly into the circulation. Stomatitis may be avoided by the frequent use of strongly-astringent tooth-powders and mouth-washes. Panas advises that the vapor-bath be used bi-weekly during the course of the friction treatment, not only

* Traitement de la Syphilis par des Frictions mercuriales.—Jour. de Méd. et Chir.; Abstract, Archives of Dermatology, v. i., 1875, p. 164.

with the view of aiding the effect of the mercury, but also because it is useful in preventing ptyalism. He thinks inunction particularly useful in infantile syphilis. The usual quantity of ung. hydrarg. advised is ninety grains daily.

Fournier* gives only a qualified approval to the use of inunction, regarding it as a dirty and disagreeable treatment. The employment of oleate of mercury, however, does away with this objection, in part at least. In fact, the difficulty is rather to induce the patient to follow out the treatment with thoroughness and care; and here lies the objection to all forms of treatment requiring manual exertion on the part of the patient,—that outside of a hospital it is very difficult to get the procedure thoroughly carried out. Patients will take powders, pills, or potions, week in and week out, but can only exceptionally be induced to keep up a plan of treatment which requires daily personal manipulation. A plan of getting these substances into the system without unnecessary labor on the part of the patient, is to have him smear them thickly over the soles of the feet on rising in the morning, and then, putting on stockings and shoes, go about as usual. By this means the inunction is automatically carried on until the remedy has penetrated the organism. Fournier speaks of the rapid production of mercurial stomatitis in the course of the inunction treatment; but his opinion in this respect is not borne out by the observation of others. A considerable experience of the inunction method has failed to reveal to the writer a single case where stomatitis to any marked degree has been brought about during the course of this treatment. Precautions, in the way of astringent mouth-washes, etc., are very proper, and the patient's mouth should be frequently and carefully examined. Inunctions are admitted by Fournier to be useful in the following cases:

1. In case of serious lesions, which it is necessary to act upon surely and rapidly.

2. In cases which are rebellious to other methods.

3. In cases in which mercury is not tolerated by the stomach.

There can be no question but that inunction is the method *par excellence* in iritis. Cases are not infrequently met where, the internal use of mercury having proved of no avail, the employment of inunctions is followed by a rapid and satisfactory result.

A. Van Harlingen.

(To be continued.)

* Leçons sur la Syphilis, étudiée particulièrement chez la Femme, Paris, 1873.

CORRESPONDENCE.

LONDON LETTER.

THE prevalent feeling here is one of depression. There was an old proverb to the effect that "a green Yule makes a fat kirkyard," but of course modern progress has reversed the decision of the sages of the past on this as well as on most other matters; whether decisively or not remains to be seen. Anyhow, this Christmas and New-Year will be long remembered for the most disastrous floods. Not in one county or congeries of counties, but from every side, come accounts of floods, each seemingly more disastrous than the other. The basins of watersheds, the margins of rivers, the flat meadows of the midlands, are alike waterlogged. Of course the most severe floods are felt where the onward progress of the waste waters is arrested by the tides, and incalculable misery has been caused by the unwonted rainfall. After a brief cessation the rain comes on again just as heavily and with as thorough a down-pour as is usual at the end of a long spell of drought when the weather breaks. The scientific interest in the subject is, what will be the consequences of these floods upon the public health?

The temperature has been exceedingly mild through it all, and fires on many days have been felt quite oppressive. Whether it is the low temperature, or what, the smallpox is increasing steadily, especially in the southern and eastern districts. The hospitals are all full, and many patients must be nursed where they are and however unsuitable their habitations, simply because there is no further accommodation for them. The authorities are taking all possible steps to provide the requisite accommodation, but the progress of the malady is still swifter than their action. It is astonishing to see how the skeptical on the subject of vaccination are converted to other views by the close propinquity of smallpox. The example set by her Majesty in having herself and all the royal household at Windsor vaccinated is an excellent one, and one which will be largely followed by many who have not capacity enough to have the operation performed simply on its merits.

The Lettsomian Lectures of the Medical Society have been commenced. They are delivered this year by Dr. Alfred Wiltshire, who has chosen the subject of "vascular rhythm." He first showed that the catamenial flow was not merely a local increase of vascularity, but

a state of general vascular excitement. Nævi became of a brighter hue during this time, and blood oozed from the cicatrices. There were, too, the instances of vicarious menstruation and the internal hemorrhages so frequent at this time. He exhibited sphygmographic tracings of the changes in vascular tension found at this period, and also thermometric observations. These latter are very instructive. Menstruation is irregular in idiots, and Dr. Langdon Down, at his private asylum for idiots, finds that by taking regular thermometric observations the attendants can always note when the catamenia are impending. Dr. Wiltshire then proceeded to discuss the nervous relations of this rhythmic vasular excitement. He seemed inclined to think that the periodical disturbances in the insane attributed to lunar influence were and are really due to this catamenial excitement, or at least to rhythmic vascular turgescence. The subject is one of great interest from a practical point of view.

Dr. Storer, of Boston, has contributed a valuable paper to the *Edinburgh Medical Journal*, this month, on "The Uterine Ebb," in which he points out that there is a uterine high-tide and ebb, the one before and the other after the menstrual flow. The influence exercised over the results of operations, etc., by this tidal action is very great. It has long been known in practice that it was unwise to operate upon a woman before or during her periodical fluxes, and that the results were much more satisfactory when the operation was performed after the flux; but now the subject is transferred from empiricism to a safer scientific ground. The rules which should guide operators upon the female sex are now being fairly cleared up, and, if the line of inquiry opened by Dr. Wiltshire be carried out fully, there seems every reason to expect that much valuable information will be gained about the perturbations to which women are subject when the catamenia themselves are absent and yet there is rhythmic disturbance in action. It would seem probable that by means of careful observation these times may be noted and avoided in women who have amenorrhœa or in whom the catamenia have ceased,—and as a consequence will follow improved results in operative procedures upon women. The subject is not of scientific interest only, but will probably furnish the most valuable practical results. As I pointed out in the case of Cæsarean section recorded in a recent letter, there are many things to be considered, in performing an operation, beyond the mere manner of operation and the minor details which belong to "the carpentry of surgery:" there is the individual, and all that belongs thereto,—often the chief factor in the result, but too often almost entirely overlooked in the calculation.

The subject of color-blindness is one which is not only interesting in itself, but one which is fraught with an intense practical interest for all who travel by railroad. A recent railway accident at Christmas could only be accounted for on the hypothesis that the driver of the express had been oblivious of the fact that the signals were against him until he came to the second set, when it was too late to avoid the collision. The man himself and his stoker were both killed on the spot, and so there is an open field for speculation. The driver was in perfect health, and was spoken to by the superintendent as the train started on its journey: so that there was no suspicion of any drunkenness. The man's general character was excellent, and his watchfulness unimpeachable: so the hypothesis of color-blindness has been started. There is a very prevalent belief that color-blindness, or Daltonism, is a common affection; and, with our present dependence upon colored signal-lights, it is a matter of the greatest moment to ascertain the real facts of the case. The matter has been taken up by Mr. Herbert Page, of St. Mary's Hospital, who is also surgeon to the great London and Northwestern Railway Company. He shows that of eight hundred men examined by himself no single one was the subject of true color-blindness. He found that in a large number of instances the men gave the wrong name simply from lack of familiarity with the mere name; but when asked to name some natural object of like color they were found to distinguish the color quite properly. Mr. Page's observations are borne out by those of his father, who has been the surgeon of the northernmost section of the same railroad company since its first formation, and who has found "only three cases of well-marked color-blindness out of the many hundreds he has examined."

It is very desirable that this matter should be examined to the very bottom and the facts placed beyond doubt or cavil. It is not to be expected, in the present state of human nature at least, that an aspirant for a situation will throw away his chances of securing the coveted post by voluntarily announcing any imperfection in his vision; consequently, the railway companies must subject their candidates to the most searching examination, if only in self-defence against preventable accidents. To any one who looks out at the multitudinous signal-lights at London Bridge or Clapham Junction, it at first sight would seem impossible for any human eye to discriminate the correct state of affairs, or to be able to distinguish safely amidst the bewildering mass of various-colored signals; and yet it is done, with a safety and certainty which seem little less than marvellous, by imperfectly educated men, every night and morning of their lives. The very facts of railway travelling would seem to indicate that color-blindness does not exist to any appreciable extent.

The present season is that *par excellence* of coughs, colds, and affections of the air-tubes. It may not be out of place, then, to review the

subject of catarrhs, especially in relation to the points to be attended to in their treatment. It will be found that there are several well-marked stages, each of which demands its appropriate treatment, and if the treatment suitable enough to one stage be adopted during a truly anterior stage the results are unsatisfactory. This was strongly brought before my attention recently by a prescription handed to an out-patient who was in the first stage of a bronchial catarrh. It consisted of the ordinary squill-mixture of the hospitals (squill and paregoric), which would have been quite appropriate to a more advanced stage, but which was quite unsuited to the then condition of the patient. The first stage of disturbance is that of congestion of the mucous lining membrane of the air-tubes. The membrane is swollen and dry; it is vascular, but all secretion, or almost all, is arrested; a little glairy mucus streaked with blood is all that is expectorated after much and distressing coughing. There is some difficulty of breathing, for this swollen condition of the mucous membrane diminishes the calibre of the finer air-tubes, while at the same time the dry, irritable condition of the membrane excites much reflex cough, as useless as it is troublesome. There is more or less general disturbance, with some fever and a dry skin. This first stage is succeeded by the second, where there is a moist condition of the membrane and free secretion and the accumulated mucus is readily and easily expectorated. But it commonly enough happens that the first stage is persistent, and remains for some days, causing much suffering and distress. The patient is subject to long paroxysms of coughing, which are very exhausting, but without affording any real relief. The active efforts of coughing cease for a time from sheer muscular exhaustion, but the source of the irritation is unremoved, and ere long another paroxysm of futile coughing is set up. This goes on until the patient is often seriously ill before any amendment is inaugurated. In some cases this stage lasts for two or three weeks, the patient being confined to bed, ere the second stage is inaugurated. As soon, however, as the secretion becomes free, the case passes swiftly onward through its more advanced stages towards convalescence. The pathology of this condition points to the remedial measures to be used. The agents to be employed here are the vascular depressants and the nauseant diaphoretics. The first indication to be fulfilled is to relax thoroughly the vascular system, so that the local turgescence may be relieved. For this purpose antimonial wine, iodide of potassium, ipecacuanha wine, and acetate of ammonia are used, either singly or combined. They should be given in full doses until the skin is moist. The dryness of the bronchial membrane remains as long as the skin is dry, and the agents which relax the skin are those which will relieve the bronchial membrane, with the exception of opium; consequently opium is especially unsuited for the purpose of relieving the first stage of bronchitis. It will check the cough, truly, to some extent, but if it does so it does more harm than good. It abates the cough, but it leaves the condition on which the cough depends not only unrelieved but, if anything, aggravated. The patient should have the above-mentioned remedies—with small doses of tincture of aconite if the pulse be full—until the skin is thoroughly moist. It is well also to put the patient to bed, and aid the action of the remedies given internally by the application of moist heat to the skin. Hot bottles in moist—not wet—woollen wrappers may be placed around the patient in bed with great advantage. At the same time it is well to soothe the dry irritable bronchial membrane by the inhalation of steam. In some cases a poultice to the chest is useful, and in obstinate cases it is well to rub the chest with croton-oil liniment or other counter-irritant before applying the poultices. This last is very desirable where this first stage has lasted many days and a feeling of "rawness" is experienced from the prolonged mucous congestion. By these different measures combined, the bronchial membrane is relaxed, secretion becomes free, and, though the air-tubes are more or less choked with the mucous secretion, the breathing is freer, because the membrane is less congested and the calibre of the tubes once more near the norm. After the secretion has once become free and readily expectorated, then a totally different line of treatment is to be adopted. To a great extent it becomes a question of endurance; and if the patient's powers are equal to the strain put upon them, of having to breathe through more or less choked air-tubes only kept open by repeated coughing, and of broken sleep in consequence, then all is well. To maintain the powers, good food, stimulants, and stimulant expectorants are needed, and that, too, in no stinted quantity. Ammonia, spirits of chloroform, and senega, or spirits of chloroform with the mineral acids and syrup of squills, are excellent measures. All hypnotics are to be scrupulously avoided; for if the breathing were only unobstructed the patient would soon be in a deep sleep without any narcotic. To give an hypnotic is to prostrate the voluntary efforts, and so to lead to a condition of great peril from the air-tubes being blocked up. The obstruction caused to the flow of the pulmonary circulation in a severe attack of bronchitis often puts a great strain upon the right heart, and leaves the patient in a more or less crippled condition for a long time after. Indeed, the dyspnœa which remains is as much due to dilatation and enfeeblement of the right heart as to emphysema. If an elderly person, already the subject of some valvular disease, has a severe attack of bronchitis, he will very probably die from failure of the right heart;

and in such patients digitalis must be added to the expectorants as soon as ever the first stage is over. (The treatment of the first stage should be conducted with as little resort to vascular depressants as is practicable.) By such use of digitalis many cases may be steered to convalescence which would otherwise almost certainly succumb. The same holds good of the very common cases of winter bronchitis where there is also emphysema and a chronically dilated right heart. These patients are usually gray-haired, the skin is dry, their arteries are prominent and tortuous, and the eye is leaden and not rarely possesses more or less of an arcus senilis. They are free from their cough and expectoration as long as the weather is genial, but with the oncome of cold their cough returns. These patients are almost always the subject of chronic renal changes, as their arterial system testifies, and ordinary cough-mixtures are useless with them. The best mixture for these cases is a little iodide of potassium, with bicarbonate of potash, some digitalis, or a very full dose of tincture of squill in some balsamic mixture, as ammoniacum or guaiacum. Each dose should be taken with a draught of water, and in a few days relief is usually afforded. These cases are seen in greatest number in cold, frosty weather; they improve when the weather becomes milder, and are back again as the cold returns. When spring is thoroughly established they are lost sight of, but they return in winter like the frosted window-pane. It is well, too, to give these patients cod-liver oil. As the most readily assimilated of all fats, they readily digest it, and in its combustion they find a grateful increment of animal heat. The oil is of as great use here as in any case of phthisis, for the stomach is enfeebled by the venous congestion caused by the obstruction to the blood-flow throughout the lungs; while these patients have a difficulty in keeping up their temperature from the impaired chemical interchanges going on in their crippled respiratory organs, and a readily oxidizable food is very necessary for them. It is a matter of considerable question whether astringents are of much service in the treatment of the rheum which is apt to remain after the inflammatory action has passed away. Small doses of opium with balsamic expectorants may be indicated, but warm, pleasant air is to be preferred when the patient can make the desired change of residence. In the subjects of winter bronchitis warm woollen clothing is absolutely essential to their well-being. The question of the use of opium or morphia in these cases to secure sleep at night is one admitting of many considerations. Though Dr. Loomis has shown that opium is not the dangerous agent in renal disease that it has been held to be by many, still there is no doubt that it is an unsafe measure with many who suffer from chronic disease of the kidneys. In the cases just mentioned, a small dose of opium or morphia at bedtime is often useful. It is well to combine one-sixth of a grain of morphia with a grain of powdered ipecacuanha and three grains of guaiacum in powder in any vehicle, say aloes and myrrh pill, to form a pill to be taken at bedtime. This pill, together with the potash expectorant mixture given above, is in many cases of great service to the patient. Such are the measures which seem best suited to a class of cases which do not yield to the ordinary expectorant mixtures, and which certainly are not benefited by the use of mineral astringents, zinc, etc., though these drugs may do good as tonics in improving the general condition.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, DECEMBER 14, 1876.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

REPORT of the Committee on Dr. Wm. Pepper's case of extra-uterine pregnancy. (See original communication in next number of the *Times*.)

Specimens from two cases of combined heart and kidney disease. By Dr. LOUIS STARR.

Case I.—Lizzie C., æt. 24, single, a "book-sewer" by occupation, was admitted to the Episcopal Hospital on November 11, 1876. She had a bad family record, her mother having died of cardiac disease, and her father from some chronic illness the nature of which could not be ascertained. Her own health had been moderately good, dating from an attack of scarlet fever, unaccompanied by dropsy, which occurred during her childhood, up to 1872, when she began to notice that her work was becoming more irksome and that she was more readily fatigued. There was no further indication of ill health, however, until 1873, when micturition became so frequent as to attract her attention, and there was some puffiness of the eyelids and slight œdema of the feet and ankles. The latter symptoms disappeared under treatment, and she was able to keep at her trade, though interrupted by several short attacks of subacute rheumatism, until the summer of 1875. At this date the œdema reappeared, the general debility increased so that she was obliged to give up work, and she commenced to suffer from palpitation of the heart and dyspnœa on exertion, together with impaired digestion and frequent vomiting. Several months before coming into the hospital her sight began to fail, and the menstrual flow, which had previously been perfectly regular, ceased.

When admitted, the patient complained of headache, indistinctness of vision, affecting chiefly the left eye, great prostration, and pain

over the region of the kidneys. The skin was waxy in hue, the mucous membranes were pale, the eyelids somewhat puffy, and the feet and ankles œdematous. Her tongue was covered with a light fur, and there were anorexia, nausea, vomiting, and a tendency to constipation. There was no cough, but any effort was followed by shortness of breath, and palpitation. The pulse was somewhat irregular, and counted about one hundred beats per minute. The cardiac impulse could be seen and felt over the whole of the præcordial region, and the apex-beat was situated in the fifth interspace, just within the line of the left nipple. Both sounds of the heart were accentuated, and at the aortic cartilage a soft systolic murmur was detected. The lungs were healthy. The urine, which was voided freely, deposited, on standing, a reddish flocculent sediment, and on examination was found to contain blood and albumen, with fragments of what appeared to be granular and blood casts.

For the first two days after admission (November 12 and 13) the vomiting grew more frequent, and on the 14th the stomach rejected nearly everything introduced into it; at the same time the urine became more bloody, and the quantity passed was reduced to thirty-two ounces per diem; there was also dryness of the skin, augmented surface-temperature, slight stupor, and spasmodic action of the muscles of the face and extremities. These symptoms were relieved by free diaphoresis, induced by steam-baths, the vomiting stopping entirely, the urine becoming less bloody and increasing to forty-eight ounces, and the stupor and muscular twitching disappearing to a great extent. On the morning of November 17 the above symptoms returned, attended by a trifling hemorrhage from the nose, and in the afternoon the muscular spasms became violent and constant, culminating in a general convulsion at 4 P.M. This convulsion lasted a few moments only, but was followed by another at 7 P.M. which was much longer and more severe. Immediately after the second convulsion the patient began to expectorate small mouthfuls of liquid or recently-clotted blood, and continued to do so at short intervals, in spite of the employment of astringents, until noon on the 18th. At this time, although there was no bleeding from the anterior nares, it was evident that the hemorrhage did not come from the stomach, as had been supposed, but from the nose, the blood flowing from the posterior nares into the mouth. Accordingly, the nostrils were plugged with the aid of a Belloque's canula, and the bleeding was controlled at once.

The weakness resulting from the loss of so much blood, added to the previously existing debility, had brought about a condition of extreme prostration. The patient answered when spoken to, but otherwise seemed to be indifferent to what was passing around her. The pupils were contracted, the lips blanched, the nose and extremities cold, and the surface of the body bathed in a clammy sweat; the pulse was 108, and very feeble, and the aortic murmur less distinct than before; the respiration was slow and irregular; there was frequent hiccough, convulsive movements of the hands, and the urine and fæces were evacuated involuntarily. On November 19 there was little change in her condition, except that the respiration was more irregular, presenting the peculiar *tidal* character sometimes observed in cases of cardiac failure, and several purpuric spots were noticed on the tongue and face. A microscopical examination of the blood showed no increase in the number of white corpuscles. The plugs were removed from the nose early in the day, as there seemed to be no further need of their presence. On November 20 there was considerable improvement, her mind being clearer, the breathing more natural, and the pulse slower and stronger. A specimen of her urine, withdrawn by means of a catheter, was high-colored, neutral in reaction, had a sp. gr. of 1012, and contained a large quantity of albumen, about three-fifths of bulk tested, but was less smoky than before. The microscope revealed red and white blood-corpuscles, with granular and small hyaline casts. The quantity could not be estimated, as it was still passed involuntarily.

During the 21st and 22d the improvement continued; the bladder and rectum were no longer evacuated involuntarily, the blood disappeared from the urine, and her sight, which had suddenly grown worse after the occurrence of the convulsions, became better. On the 23d the adynamic symptoms reappeared, and death took place early on the 24th, preceded by a convulsion.

The *post-mortem* examination was made five hours after death. The lungs were perfectly healthy, and there were no pleuritic adhesions. There was a small quantity of fluid in the pericardial cavity. The heart was large, weighing eleven and a half ounces, the increase in size being, for the most part, due to simple hypertrophy of the left ventricle, the wall of which was nearly double its natural thickness. All the valves were normal, but there were several patches of atheroma about the orifice of the coronary arteries. The liver was enlarged and congested.

The kidneys were dense and lobulated, and weighed together four and a quarter ounces, the right being about one-third smaller than the left. Their exterior surfaces were rough, their capsules opaque and adherent, and upon section the cortical portions were found to be greatly reduced in thickness, forming merely a narrow border around the pyramids, which were closer together and less distinct in outline than usual. These changes were most marked in the right kidney; in this, also, the small arteries were very prominent. The rest of the abdominal viscera were free from lesion.

Case II.—Wm. W., æt. 68, a shoemaker, was admitted to the medical ward of the Episcopal Hospital on October 6, 1876. He denied ever having syphilis, and, although addicted to drinking in early life, had been perfectly temperate for about twenty years. His health had been remarkably good until 1870, when he had an attack of acute articular rheumatism. Three years later, while excited at a camp-meeting, he was seized with pain in the region of the heart, palpitation, and shortness of breath. Afterwards he noticed that the same symptoms were produced by any unusual effort, and, as he began to grow weak and unfit for work, he applied for relief at the Presbyterian Hospital. Here he remained for two months, and when discharged was much improved in strength, though still subject to attacks of pain, palpitation, and dyspnœa, on exertion. He resumed work, but slowly relapsed into his former condition, and in December, 1874, was admitted to the Episcopal Hospital. He again improved under treatment, and, for several months after leaving, enjoyed better health than at any time since the commencement of his sickness. In the fall of 1875, paroxysms of palpitation and dyspnœa again began to occur frequently, and were soon associated with œdema of the feet and legs, a condition that had hitherto been entirely absent. The œdema, which at first was trifling, disappearing entirely after a few hours' rest in bed, gradually became permanent, and, together with the symptoms of cardiac failure, slowly increased in severity up to the time of his readmission to the Episcopal Hospital. At this date there were extreme anæmia and weakness, considerable ascites, œdema of the feet and legs, severe orthopnœa, occurring in paroxysms, and diarrhœa. The pulse was feeble and irregular. The urine was passed in small quantities, and was high-colored and albuminous.

When I first saw the patient, on October 20, he was much stronger and less anæmic than before, and there was only a small collection of fluid in the peritoneal cavity, though the legs and genitals were very œdematous. The respiration was frequent, twenty-eight per minute, and somewhat labored, but there was no orthopnœa, and, with the exception of sonorous bronchial râles, none of the physical signs of pulmonary disease could be detected. The pulse was sixty-four, very weak and irregular, the impulse of the heart could scarcely be felt, and on auscultation a systolic aortic murmur was discovered. The urine was cloudy, had a sp. gr. of 1030, contained a small quantity of albumen, and numerous granular and hyaline casts, and the amount voided was about twenty-two ounces in twenty-four hours.

From October 20 to November 15 his condition grew better, the pulse becoming fuller and more regular, the œdema lessening, and the urine increasing in quantity. Subsequently the dropsy increased rapidly, orthopnœa returned, the pulse became almost imperceptible, œdema of the lungs set in, and death occurred on November 23.

The *autopsy* was made fifteen hours after death. When the thorax was opened, the left lung was found to be adherent over its whole surface to the chest-wall, and was removed with some trouble. It was heavy, pitted on pressure, and on section a sero-sanguinolent liquid escaped in abundance. The right lung was somewhat compressed by an accumulation of liquid in the pleural cavity, and was slightly œdematous.

The pericardium was thickened and contained a small amount of straw-colored fluid. The heart was greatly enlarged, weighing fifteen and a half ounces, but its tissue was pale and devoid of firmness. The wall of the left ventricle was hypertrophied, and its cavity much dilated; the right ventricle was also dilated, while its wall was scarcely thicker than normal; both auricular cavities were increased in size. Two of the leaflets of the aortic valve were rigid, and could not be readily turned back against the aorta: this rigidity was due to atheroma, which, however, involved only the outer two-thirds of the leaflets, leaving the free margins unaffected. The cardiac surfaces of these segments were smooth, but upon their upper or arterial surfaces hard calcareous plates could be felt. The edges of the mitral valve were thickened. The tricuspid and pulmonary valves presented no alterations, except that two of the leaflets of the latter were slightly fenestrated. The aorta, for a considerable distance from the heart, was in a state of advanced atheromatous degeneration, and its internal surface was dark red in color. The orifices of the coronary arteries were surrounded by calcareous rings, and the vessels themselves were dilated and converted into brittle and rigid tubes.

There was a large collection of fluid in the abdominal cavity.

The liver was somewhat contracted.

The kidneys weighed together eight and three-quarter ounces, the right being slightly and the left considerably smaller than normal. They were lobulated and congested, their capsules, though thickened, were easily detached, and their cortical portions were reduced in thickness. The right kidney contained several small cysts, and the left had a peculiar shape, its central portion being constricted and knotted. The other abdominal organs were healthy.

From the clinical history and the post-mortem appearances in the first case, it is evident that the lesion of the heart was secondary to that of the kidneys; in the second case, on the other hand, the alteration in the kidneys was most probably due to congestion, depending upon cardiac failure.

A microscopical examination of these organs was made by Dr. Simes, Pathologist of the Episcopal Hospital, who reported as follows:

Case I.—*Kidneys.* There is a great increase of the interstitial connective tissue. The uriniferous tubules are in places widely separated, and, together with the capsules of the Malpighian bodies and the blood-vessels, are surrounded by a dense fibrous tissue.

Case II.—*Heart.* The tissue of this organ is in a state of fatty degeneration.

Kidneys. These present the same pathological changes as found in a somewhat advanced stage of interstitial nephritis.

Intra-thoracic cancer, involving pleura, diaphragm, and chest-walls. By Dr. WILLIAM PEPPER.

The case was under the care of Dr. Yarrow, with whom I had the pleasure of seeing it in consultation. The patient, aged 56 years, was in active business. He was free from any predisposition to cancerous disease. He had been subject for years to a bronchial cough. He saw Dr. Yarrow on May 10, 1876, for a malarial trouble which lasted two weeks. He then convalesced, and was lost sight of for six weeks. Dr. Yarrow was then again called in to see him, and found evidence of marked effusion on the right side, which caused violent orthopnœa. The physical signs were localized chest-pain, absence of respiratory sound, and dulness on the right side. These signs gradually diminished, and in one month he was much better: there was return of resonance, diminution in pain, and much improvement in general health. During the whole period of his sickness there was marked disturbance of the liver, with a heavily-coated tongue, torpid bowels, and scanty urine. He commenced going out, and then there occurred a second effusion, causing dangerous orthopnœa. This occurred about the 10th to the 15th of September. There then appeared, for the first time, distinct prominences, with severe pain. The *first* prominence appeared over the ninth right rib posteriorly, four inches from the spine. The *second* appeared below the sternal end of the right clavicle; the *third* on the right side, in line of armpit, about the tenth rib. The signs of this last effusion never entirely disappeared, and there was no cessation of pain.

In the early part of October, when I first saw him, the symptoms were as follows. Great emaciation and profuse general sweating. (At the time of the first effusion the heart's action was frequent and irregular, continuing so until the close of the case.) There was no cachexia, but great pallor. Temperature not taken. The sweatings were so profuse as to require on some days that the clothing should be changed three times. This was not daily. It was at irregular periods. Sleep was disturbed by the intense pain. This pain was constant, but also had paroxysms. It coincided chiefly with the prominences, but extended down also the nerves of the right arm. There was a severe dry cough. The pulse was frequent and feeble; right side of chest enlarged. Movement impaired, but not lost. Dulness irregularly distributed over it. Apex in front dull. Resonance down to about the fifth rib; not quite so low on side. Posteriorly, flatness from spine of scapula down. Respiratory sounds corresponded. Over dull area behind, feeble distant breathing, slightly bronchial. Over resonant areas, healthy murmur. Change of position produced no effect at all. A trocar was introduced through the eighth interspace posteriorly, about line of scapula. About one pint of clear serum was drawn off. Towards the close the fluid was nearly pure blood, and the canula was withdrawn. This afforded some relief, especially from the pain, but did not affect the physical signs, except that the murmur and vocal fremitus became more distinct behind. The heart was too far to the left. It was outside of the nipple. There was increased dulness there and along the sternum. No distention of the veins of face, neck, or right arm. Heart's action frequent and feeble; no murmurs. There was a second operation performed at the same point as the first, with no result.

The prominences increased. No further effusion existed. From this date to December 11, 1876, about five weeks, he progressively failed in flesh and strength. There was great pain, which required large doses of morphia by mouth and hypodermically to relieve. The cough became worse. There were muco-purulent sputa. Slight œdema appeared, and death occurred.

At the *autopsy*, the chest and abdomen were examined. The left lung was healthy, but congested. The heart was pushed somewhat towards the left side. A large mass of morbid growth, resembling an encephaloid sarcoma, lay in the anterior mediastinum, attached to the posterior surface of sternum, and also to the outside of the pericardium. On opening the sac, there was about a gill of bloody serum, and both layers of the pericardium presented marked lesions of old inflammation. There was no disease of the valves. On the right side, corresponding with the prominences already described, were extensive cancerous masses. In the case of the one over the apex in front, the morbid growth also involved the intercostal tissues and the second and third ribs. The mass on the posterior surface was very large and extensive, and involved both layers of pleura, and also the superficial layer of lung-tissue at a few points. It reached from about the third rib down to near the diaphragm, and was fully one inch thick in some places. The mass low down on the side was smaller, also involved both layers of pleura, and was continuous with a large growth which involved the whole thickness of the diaphragm. The anterior part of this muscle was chiefly affected; the growth in places was fully one-half to two inches in thickness, and the disease extended across to median line, where it was continuous with the mediastinal growth

before described. At one spot over the convexity of liver there was an extension of cancerous disease to the capsule and superficial layer of the tissue of that organ.

There was no pleural effusion. The lung itself presented but a few comparatively small nodules of cancerous formation, and for the most part was crepitant. Along the posterior surface and at the apex it was intensely congested and œdematous. At the point of the first puncture there were pleural adhesions, showing that there had been no attempt to reproduce the effusion which was withdrawn by paracentesis.

The liver was enlarged, congested, and somewhat indurated and granular. With the exception of the small patch above described, there was no cancerous disease of its tissue.

The remaining abdominal organs were healthy.

The body presented only a moderate degree of emaciation, considerable amount of fat remaining, especially in the omentum and abdominal walls.

(To be continued.)

GLEANINGS FROM EXCHANGES.

Popliteal Aneurism cured by the Application of Esmarch's Bandage (*Boston Med. and Surg. Jour.*, Dec. 28, 1876).—Dr. Walter Reid reports a case of popliteal aneurism of three weeks' standing cured in this manner. The aneurism was of considerable size, and occurred in a healthy seaman of middle age. After numerous attempts with various forms of compression which failed to arrest the pulsations, Esmarch's bandage was applied to the whole limb, the aneurism being passed over lightly. The limb assumed a death-like pallor, and its temperature diminished. The aneurism remained of its usual size, but was pulseless. The elastic tubing was removed at the end of fifty minutes, and a Carte's compressor was substituted. On raising the latter, a few minutes later, no pulsation was detected. Light and intermittent compression was continued during that day and the next. The pulsation did not return. Dr. Reid suggests that "the loss of temperature, and that particular condition of the tissues closely allied to death, may have had some effect in the formation of the coagulum." The use of Esmarch's bandage in a case of necrosis, when the operation had lasted over an hour without evil result following, had suggested to him the practicability of the application of this bandage where it was necessary to arrest the circulation for a considerable length of time.

Another case treated in the same way occurred under the care of Mr. Wagstaffe, at St. Thomas's Hospital. A barman, aged thirty-two years, when pushing a heavy cask some five months previously, had felt "something snap" in his right popliteal space. On admission there existed a pulsating tumor at that point two inches long, filling the upper half of the space, terminating opposite the junction of the femur with the tibia, together with considerable œdema of the leg. An Esmarch's bandage was applied tightly over the foot and leg up to the lower border of the popliteal space, carried lightly over the tumor (a thin layer of cotton-wool intervening), and then continued tightly over the thigh to within three inches and a half of Poupart's ligament. The bandage was left on for one hour, during which time the patient was very restless and complained of pain. One-third of a grain of morphia was given subcutaneously. At the end of this time a tourniquet was placed on the femoral artery, and Esmarch's bandage removed. A second tourniquet alternated with the first, and pressure continued for twenty hours; pulsation had ceased at the end of two hours, and did not recur after the tourniquet was finally removed.

Subcutaneous Injection of Morphia in the Treatment of Sciatica, Lumbago, and Brachialgia.—Dr. Henry Lawson has seen eighty cases of these forms of nerve-affection,—some of them excessively bad cases,—and in not more than three did the subcutaneous injection of morphia fail to give relief, in most cases complete. By means of this relief the patient was enabled to eat and drink with comfort, and by help of perchloride of iron, and in some cases by cod-liver oil, he was enabled to put on flesh rapidly, and to repair the waste of tissue under which he had been laboring. A valuable remedy in these cases is hypophosphite of soda. It is simply as a means of relieving the pain, not with any view of directly curing the sciatica, that Dr. Lawson administers morphia. The salt he uses is the muriate. Five grains are dissolved by the aid of heat in one drachm of distilled water: it must be injected warm, as the solution solidifies on cooling. The place of injection should be chosen as near as possible to the seat of pain, and the point of the needle should not be more than half an inch long. Dr. Lawson does not object to the puncture of a minute vein, as thereby the medicine is more rapidly absorbed, while the alarming symptoms which ensue are generally very transitory. The patient should have eaten a hearty meal about half an hour previous to the injection: this prevents to some degree the soporific effect of the drug, while it heightens its effect in allaying pain.

Dr. Lawson is led by his experience in the antagonism of atropia and morphia to side with Dr. Harley, and against Drs. Mitchell, Morehouse, and Keen, as well as Erlenmeyer. Lawson believes that these drugs are not antagonistic; at least there is no such antagonism as would justify their being used as antidotes one for the other. Dr. Lawson's

experience of atropia is distinctly against its use in cases of sciatica, lumbago, etc. Atropia always produces unpleasant sensations in the head, and a sense of fulness and giddiness; and it also accelerates the action of the heart. It certainly does give some relief from pain, but as compared with morphia not one-tenth the amount. The only difference in favor of atropia is that it does not appear to affect the bowels unfavorably. As regards the dose of morphia, Dr. Lawson thinks it better to give frequent injections (two, three, or four per diem, in extreme cases) and small doses, than large doses and few injections. The object of the practitioner must be merely the removal of pain, not the production of heavy sleep. Dr. L. has rarely to give more than a grain of morphia, and he usually gives the first injection to the extent of one-sixth of a grain soon after a full meal, increasing the amount in subsequent injections, but never beginning with a large dose, which he considers a foolish and dangerous procedure. Dr. Lawson uses tr. ferri chlor. in twenty- to thirty-minim doses, thrice daily, together with cod-liver oil invariably. In addition he suggests the taking of frequent small meals, every two hours even. As to the employment of injections of cold water in sciatica, Dr. L. says he has absolutely no faith in the remedy.—*Med. Times and Gaz.*

Complete Rupture of Urethra; Retention of Urine; Recovery (*New York Medical Journal*, January, 1877).—The following case was recently treated at Bellevue Hospital:

A man, aged 22, while working on a canal-boat, fell astride a board, and received a severe contusion in the perineal region. Shortly after the injury the patient urinated without difficulty, but found that the urine contained blood; afterwards, he was unable to pass his water, and remained for about two days without treatment. When he was taken to the hospital the bladder was found distended with urine, and reached up nearly as far as the umbilicus; there was also extravasation of urine in the scrotum and perineum. All attempts to introduce a catheter were without avail, and the urine had to be evacuated by means of an aspirator.

For the relief of the extravasation of urine an incision was made in the perineum, beginning at the junction of the penis and scrotum, and extending backward to within an inch of the anus. A sound was introduced into the urethra, and the incision carried down to it. The urethra was found to have been completely torn across. Following the operation, profuse bleeding took place, which was controlled by means of pressure made by a Barnes's dilator filled with cold water.

The patient did very well afterwards, with the exception of losing by a single slough the whole of the sides of the wound. At the present time a medium-sized sound can be carried into the bladder.

Quinine in the Treatment of Fissures of the Nipple (*Medical Press and Circular*, December 27, 1876).—Obstetric practitioners are much more in the habit of using quinine after childbirth than they were formerly, but we scarcely expected to hear that this agent would be found useful in the treatment of an affection which has always been regarded as more amenable to local than to constitutional remedies. Dr. Le Diberder, however, chief physician to the Lorient Hospital, is of opinion that the frequent failure of local treatment arises from the fact that this affection is only a manifestation of general disorder of the system. He says that the appearance of the fissures is soon followed by a general febrile state, of an intermittent nature, and during which the local affection is very likely to pass into engorgement of the breast, and even abscess. Accordingly, he thinks quinine will prove to be of the greatest service in those cases; and during a long experience of it he has always found that a cure was effected in from three to five days. He generally prescribed a dose of six grains early in the morning, and a similar dose about eleven o'clock A.M. Local treatment was considered of secondary importance, being confined chiefly to poultices and some simple wash or salve.

Note on the Quantitative Estimation of Urea (*The Practitioner*, January, 1877).—Drs. Russell and West, during the course of some experiments made in the summer, found that the hydrobromous solution decomposes very rapidly in hot weather, and that it is very important that it should be freshly prepared. They call especial attention to this, and direct that the solution be prepared as follows:

A solution of caustic soda is made in water in the proportion of 100 grammes of solid caustic soda to 250 c.c. of water. The solution may be made in large quantities, for it will keep good a very long time. To part of this solution bromine is added in the proportion of 25 c.c. to every 250 c.c. of caustic soda solution *at the time required for use.*

NOTES AND QUERIES.

DRUGGISTS AND DOCTORS' PRESCRIPTIONS.

Camp Douglas, Utah Ty.,
January 16, 1877.

Mr. Editor,—In "Notes and Queries" of your issue of January 6, 1877, under the above heading you take note of an "elaborate paper" recently read by Mr. William Thompson, F.C.S., before the Literary and Philosophical Society of Manchester, entitled "On the Degree of Accuracy Displayed by Druggists in the Dispensing of Physicians' Prescriptions in Different Towns throughout England and Scotland."

The gist of this "elaborate paper," as noted in your columns, throws odium on the dispenser.

Two prescriptions (an iodide of potassium mixture and a zinc lotion) were written by Mr. Thompson and transmitted to eighty-one druggists to be compounded. The results were carefully analyzed, and "not one dispenser has succeeded in making the prescription to the exact strength in either mixture or lotion."

The specification in the matter of the zinc lotion or oint-

ment is not given sufficiently in detail in your note to make out a case of inaccuracy against druggists in general; the great point against them seeming to rest on the iodide mixture.

"Only two druggists of the eighty-one have given exactly the required weight of the potassium iodide; thirty-four have given *more* than the prescribed amount, and forty-five *less;* but it may be of further interest to notice that when the whole of the quantities of potassium iodide given by the eighty-one different druggists are added together, the total quantity comes to 220½ grains *less* than it would have been if each druggist had dispensed the exact quantity."

Now, why is this? Something may be allowed for inaccuracy in weights; but this is not the cause of the so-called "druggists' inaccuracy."

It depends on the purity of the potassium iodide in the dispensing-bottle on the druggist's shelf.

It seems strange that Mr. William Thompson, F.C.S., should have chosen an article notoriously impure for his *experimentum crucis* in determining the degree of accuracy displayed by druggists.

The purest specimen of potassium iodide which I have analyzed (manufactured by E. R. Squibb) showed the absence of bromide, a trace of iodate and of soda, and the presence of carbonate and chloride, the analysis running thus:

Iodide of potassium . . .	97.327
Chloride of potassium . . .	.265
Carbonate of potash . . .	1.121
Deliquescent and interstitial water	1.287
	100.000

Now, had Mr. William Thompson, F.C.S., dispensed his mixture (120 grains iodide in six ounces of water) from a bottle of this comparatively pure article, he would have found by analysis that he was 3.208 grains short of the quantity prescribed.

Wood and Bache, in the Dispensatory, which lies on every dispenser's counter, say that "carbonate of potash is generally present in the proportion of from one to ten per cent." Dr. Christison has detected 74½ per cent., and Dr. Pereira as high as 77 per cent.

And, since such is the case, what does this charge against the dispenser amount to? I have no doubt that, as in all professional and business occupations, carelessness and the desire of gain will, in a few exceptional cases, creep in to taint the action of the dispenser. I must say, however, that my personal experience of drug-clerks in Scotland and in this country has led me to consider them in the line of daily duty as most conscientious men.

The fact that thirty-four of the eighty-one druggists gave *more*, and forty-five *less*, than the exact quantity, while the sum total shows a deficiency of 220½ grains, only proves, in view of the impurity of the article ordered, that so many druggists gave what is called in business "good weight."

Mr. William Thompson's experiment has a fallacy at its bottom, and in justice to the dispenser I object that the odium of such *unscientific* conclusions should be cast upon his shoulders.

Very respectfully,
CHARLES SMART,
Captain and Assistant-Surgeon, U. S. Army.

THE ACTION FOR LIBEL AGAINST THE MEDICAL PRESS AND CIRCULAR.

MEDICAL PRESS AND CIRCULAR, 20, KING WILLIAM ST., STRAND, W. C.

LONDON, Jan. 8, 1877.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—Allow me, on behalf of the conductors of this journal, to thank you for your friendly notice of this case in your issue of December 23. At the same time I would like to point out one or two little errors which crept into your short *résumé*. You mention that the "*Dublin Medical Press and Circular* has been mulcted," that "Mr. Betts opened a dispensary in Dublin," and you hope that, "for the good of Dublin," his dispensary may altogether cease, or words to that effect. The title of the journal is *The Medical Press and Circular*, the said dispensary was opened in London, and the trial took place in London. This journal was first established in Dublin, about forty years ago, but for the last eleven years has been edited and published simultaneously in London and Dublin, and is in fact the only journal which devotes EQUAL SPACE to the schools of medicine and surgery of England and Ireland. In proof of the justness of our cause in the late action, I may as well mention that meetings of the profession were held last month in London and Dublin, at which cordial votes of sympathy, confidence, and support were unanimously passed, and a "*Medical Press and Circular* Defence Fund" started to defray our costs (about £300), in testimony of the appreciation of the profession of our defence of its dignity.

I have the honor to be
Your obedient servant,
ALBERT ALFRED TINDALL, Publisher.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 28, 1877, TO FEBRUARY 10, 1877, INCLUSIVE.

MCCORMICK, C., ASSISTANT MEDICAL PURVEYOR.—Promoted Surgeon, with the rank of Colonel, vice J. J. B. Wright, retired.

SWIFT, E., SURGEON AND MAJOR.—Promoted Assistant Medical Purveyor, with the rank of Lieutenant-Colonel, vice McCormick.

MAGRUDER, D. L., SURGEON.—Granted leave of absence for two months. S. O. 21, A. G. O., January 29, 1877.

RANDOLPH, J. F., SURGEON.—Assigned to duty in Military Division of the Atlantic. S. O. 29, A. G. O., February 8, 1877.

BILL, J. H., SURGEON.—Assigned to temporary duty at McPherson Barracks, Atlanta, Ga. S. O. 23, Department of the South, January 30, 1877.

WRIGHT, J. P., SURGEON.—Assigned to duty at U. S. Military Prison, Fort Leavenworth, Kansas. S. O. 18, Department of the Missouri, January 29, 1877.

FRYER, B. E., SURGEON.—Assigned to duty as Post-Surgeon at Fort Leavenworth, Kansas, relieving Surgeon Wright. S. O. 18, c. s., Department of the Missouri.

GREENLEAF, C. R., SURGEON.—Relieved from duty in Department of the South, and assigned to duty in Department of the Gulf. S. O. 28, A. G. O., February 7, 1877.

NOTSON, WM. M., ASSISTANT-SURGEON.—Promoted Surgeon, with the rank of Major, vice Swift.

WATERS, W. E., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Columbus, N. Y. H. S. O. 29, c. s., A. G. O.

GARDNER, W. H., ASSISTANT-SURGEON.—Assigned to duty in Department of the South. S. O. 29, c. s., A. G. O.

WHITEHEAD, W. E., ASSISTANT-SURGEON.—Assigned to duty at Fort Riley, Kansas. S. O. 18, c. s., Department of the Missouri.

BUCHANAN, W. F., ASSISTANT-SURGEON.—Assigned to duty in Department of the South. S. O. 29, c. s., A. G. O.

BENTLEY, E., ASSISTANT-SURGEON.—Assigned to duty in Department of the Gulf. S. O. 29, c. s., A. G. O.

VICKERY, R. S., ASSISTANT-SURGEON.—Relieved from duty in Department of the Gulf, and assigned to duty in the Military Division of the Atlantic. S. O. 29, c. s., A. G. O.

WILSON, W. J., ASSISTANT-SURGEON.—Assigned to duty at Fort Craig, N. M. S. O. 22, Department of the Missouri, February 3, 1877.

MOFFATT, P., ASSISTANT-SURGEON.—Leave of absence extended two months. S. O. 24, A. G. O., February 1, 1877.

SKINNER, J. O., ASSISTANT-SURGEON.—Granted leave of absence for one month. S. O. 28, Department of the South, February 6, 1877.

WILCOX, T. E., ASSISTANT-SURGEON.—Assigned to duty at Camp Supply, Indian Ty. S. O. 18, c. s., Department of the Missouri.

WOOD, M. W., ASSISTANT-SURGEON.—Granted leave of absence for one month, and permission to apply for two weeks' extension. S. O. 10, Department of the Platte, January 23, 1877.

ANDREWS, W. C. C., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Davis, to report in person to Commanding General, Department of the Columbia, for assignment to duty. S. O. 21, c. s., A. G. O.

ROBINSON, SAMUEL Q., ASSISTANT-SURGEON.—Assigned to temporary duty at U. S. Military Academy. S. O. 21, c. s., A. G. O.

DAVIS, WM. B., ASSISTANT-SURGEON.—Assigned to temporary duty at St. Louis Depot, Missouri. S. O. 21, c. s., A. G. O.

PHILADELPHIA, MARCH 3, 1877.

ORIGINAL COMMUNICATIONS.

REPORT OF COMMITTEE ON DR. WM. PEPPER'S CASE OF EXTRA-UTERINE PREGNANCY.

ANATOMICAL DESCRIPTION.

As the parts stand in position, the tumor is on right side. At upper portion of tumor is attached the omentum, having considerable fat in it.

The peritoneum everywhere is smooth; in front is the bladder, normal internally and externally. At lower portion of specimen is found about one inch of the vaginal canal; its mucous membrane is normal. Os uteri is patulous, transverse, admits tip of little finger. Later in the dissection, it was seen that mucous membrane of uterine cavity and of neck was normal. Length of body of uterus, 3½–4 inches; width, 1½ inches.

Left fallopian tube seems elongated; its fimbriated extremity normal. L. tube seems to join body higher on fundus uteri than usual. L. ovary of normal size; ovarian surface shows cicatrices and what are apparently Graafian vesicles. L. broad ligament apparently normal.

The tissues in Right broad ligament are thickened at its upper part and close to body of uterus. An incision was made on anterior surface of this ligament, and by careful study of outline of uterus it was found that uterine body was dragged, or rather rotated in its lateral plane towards right. On examining interior of uterine cavity, the opening of r. fallopian tube is seen to be much lower down than that of left side; the left one being at highest part of cavity.

Commencing at r. fimbriated extremity, which is normal, r. fallopian tube can be traced up to and upon the tumor (its under surface). Here an incision of sac of tumor has been made, previously to the specimen being handed to your committee for examination, in such manner as to cut r. tube. It is impossible to trace the tube into the thickened tissue at upper border of r. broad ligament between tumor and body of uterus.

The distance between point where r. tube cannot be farther traced and uterus is about two inches.

On surface of incision, made on anterior surface of r. broad ligament, as above mentioned, careful search was made for a r. fallopian tube, extending from tumor (the point where it is lost) to body of uterus; but there was nothing present that could be identified as such a structure. The tissues here, made up partly of sac of tumor, at its point of contact with upper margin of r. broad ligament, and partly of continuation of ligament to body of uterus, are so thickened and changed from normal conditions that the existence of a fallopian tube (undiscovered) in them is quite supposable.

On surface of this incision is found an arterial vessel (containing reddish clot, in recent condition); through it a probe was passed; towards uterus, probe reaches as far as body; in opposite direction, the vessel branches, and through one of largest branches probe makes its appearance on internal surface of sac of tumor in the midst of a raised portion of fibrous-looking tissue, to be described later.

On attempting to pass a fine probe through r. tube, it is found to reach nearly (within one-third inch) to sac of tumor; *i.e.*, nearly as far as tube can be traced. In the portion of sac of tumor to right of incision made in it previous to specimen coming into possession of your committee, is found what is considered to be a farther portion of r. fallopian tube, separated from outer part of tube by the cut: it is impossible to pass probe through it. It is clear that probe, passing along r. tube from fimbriated extremity inwards, does not tend to enter cavity of sac of tumor; the tube on its way to r. broad ligament passing rather under, or in front of wall of sac. It is also impossible to pass probe to any distance into r. fallopian tube from uterine cavity.

A probe passes along l. fallopian tube from fimbriated extremity to within half-inch of uterus, but cannot be made to enter its cavity; neither can probe be made to enter uterine orifice of l. tube.

R. ovary appears the same as left; the point of contact of tumor with r. broad ligament is inwards (*i.e.*, nearer uterus) from this ovary.

No section was made of either ovary.

The tumor is said to have rested on right anterior brim of pelvis; and it is evident, from condition of specimen, that it has not been making pressure on pelvic organs.

Its surface is everywhere smooth and shining, except at parts where omentum is attached.

The mass is irregularly rectangular, flattened at sides, especially at superior part; inferior part is rounded, convex in both directions; at posterior part the outline slopes upward and backward (cutting off posterior inferior angle of rectangular figure); the anterior surface is flatter, though slightly convex from side to side, smooth at inferior portion, and roughened at superior, especially in median line; the superior lateral portions are slightly rounded, and the width of this surface is less here than below. At superior anterior border, omentum is attached, and thence, also, along superior surface. Superior surface is narrower than inferior; in its median line is a low ridge, made up of more or less regularly placed small prominences (processes of vertebræ).

The posterior border terminates in an angular-shaped prominence, rounded at its end and slightly curved downward.

The prominences on surface of tumor—of which there are many—are in general placed symmetrically.

The sac of tumor has been opened, as above mentioned, by an incision along inferior surface,—its thickest and densest part. The sac has been peeled off over a considerable portion of tumor; its thickness, as far as examined, varies very considerably at different parts—from an excessive tenuity, rendering dissection impossible, to about one line in thickness, at line of incision.

On inner surface of sac, near point of contact of sac with upper border of r. broad ligament, is a raised portion of fibrous-looking tissue, above mentioned. Here it is that the only distinct vascular trunk is found, coming along broad ligament and branching in the fibrous-looking tissue. This tissue presents a radiating surface-appearance, thickest in middle (remains of placenta). This surface had been separated from tumor before our examination. There is found no structure proceeding from it, or attached to it, that could be identified as umbilical cord. No trace of umbilical cord was found during later examination; its abdominal attachment being covered by the folded head and extremities. No attempt was made to remove these structures.

The line of incision of sac is found to correspond to sagittal suture of fœtal head; the suture is slightly overlapped by left parietal bone. The anterior surface of tumor is made up of occipital bone, neck and back as far as upper dorsal region; the shoulders and scapulæ are at superior anterior angles of rectangle. At this border, spine is bent at right angles, and dorsum, as far as sacrum and coccyx, forms superior surface of tumor. The posterior surface extends from point of coccyx to fœtal forehead; on this surface are arranged the lower extremities, which can be only partially traced.

On right side of frontal bone, parallel to coronal suture, is placed the right hand; wrist is at anterior inferior parietal angle; tips of fingers reach median line of frontal bone.

The left hand, partially closed, is placed on left parietal bone, in advance of its protuberance; left wrist is dislocated, the carpal ends of bones of forearm are projecting.

The arms are placed at sides of trunk; forearms of both sides are flexed at acute angle on arms, the left the most so. The bones of both superior extremities are to be well traced; those of right forearm are least distinct, however.

The right femur is placed obliquely on posterior surface, running obliquely downward and to right, from point of coccyx; its head and neck contribute, with coccyx, to making up the rounded termination of angular-shaped prominence at posterior end of superior surface. Right leg can be traced running across forehead, downward, forward and to left; the ankle resting to left side of anterior fontanelle; knee being close to right wrist; foot cannot be distinctly traced.

Behind and slightly above right leg, on posterior surface of tumor, and exactly in median line, is a prominence, evidently condyles of l. femur. Head of l. femur is apparently in articulation with pelvis.

MEASUREMENTS.

Bi-parietal, width 3⅛ inches.

Antero-posterior diameter of mass (greatest), 4⅝ inches.

Vertex to bend of spine in dorsal region, 4⅜ inches.

From dorsal bend to point of coccyx, 4⅝ inches.

Left humerus, length 2 inches.

Right humerus, length 2¼ inches.

Left forearm, length 1¾ inches.

Right femur, length 2½ inches.

On inner side of tumor (*i.e.*, left side of fœtus), at superior anterior angle is a prominence not present on opposite side. This prominence commences ¾ inch from median line of dorsum, extending downward and slightly backward, reaching nearly to middle of shaft of l. humerus; in front of prominence is l. scapula and shoulder-joint. Prominence measures 1½ inches long, perhaps 1 inch broad; surface-projection low and flattened.

The interest which this prominence possesses was first noticed by Dr. Nancrede whilst making the drawing. The drying of its surface made its nature apparent. It is another fœtus.

At its upper and back part are seen the spinous processes, etc., of its vertebræ; running from thence, forward and downward, are ribs. The second fœtus's head, therefore, is placed behind shaft of l. humerus. The head has been much flattened, its bones separated and displaced. The sacrum is directed upward and forward, reaching nearly to inferior angle of scapula, near the point where vertebral column of large fœtus makes sharp bend in dorsal region.

Vertebræ and ribs are most distinctly recognized; bones of arm and forearm of one side are somewhat less easily traceable; it was possible to make out only indefinitely other osseous parts; for example, head and sacral portions.

The second fœtus was carefully examined to determine its connection with large fœtus. The sac of tumor evidently encloses both products of conception. The examination was continued by making incision of sac around periphery of small fœtus; after which it was raised up and the parts below second fœtus, where it rests on large fœtus, examined.

There is between them considerable cellular tissue, partly dense and fibrous. It is impossible to speak with certainty of the positive existence of a sac-wall separating the two. The sac which has been described as enclosing large fœtus was certainly continuous directly over second fœtus, and it showed no distinct prolongation inwards between the two. The presence of cellular tissue between the two structures is readily to be accounted for in the changes undergone by integuments of large fœtus.

No special examination was made to determine extent of ossification of bony parts. It was evident, however, that considerable amount of calcareous matter was present in all bony structures near periphery of tumor. The whole mass was exceedingly rigid; movement or indentation by pressure was to a great degree impossible.

It is further to be noted that, after removal of sac of tumor (at least, so far as this was done), there was presented an appearance of a second inner membrane, smooth on surface, although having fibro-cellular attachments to outer sac. Effort was made to dissect away this *inner* smooth covering, but it failed; the membrane, so called, being continuous with subjacent structures of large fœtus.

The effect of this inner membrane and its subjacent tissues was to fill interstices naturally present between the fœtal trunk and head and the folded extremities.

In the tissues subjacent to this inner membrane were found calcareous particles and masses of irregular form. This calcareous tissue was something apart from bones or their fragments.

As to the nature of the pregnancy, the committee are of the opinion that it is abdominal, originating upon the posterior layer of the right broad ligament. They are led to this opinion chiefly by the small section of tube involved in the growth, and the decided thinning of the middle and lower portion of the broad ligament, due to traction upon its posterior layer during the growth of the fœtus, and to a similar traction from its propulsion upwards by the pregnant womb in the subsequent normal gestations. Finally, there is no history of rupture.

It is hardly to be supposed that a fallopian pregnancy could proceed to full term without involving more than two inches of tube. It is doubtful also whether it can justly be said that two inches of the right tube remain to be accounted for, since, as may be recalled, it is stated in the anatomical description that the left tube, with which it, of course, was compared, was elongated. The right tube is traceable up to and UPON the under surface of the tumor, where it becomes suddenly lost, probably atrophied from pressure; there is no gradual dilatation in the direction of the tumor. The portion of tube not traceable is also closely external to the placental site, where the maximum pressure would be exerted, and where also the greatest vascularity would exist, both of which conditions are the

most favorable possible for the production of atrophy. Cases of twin extra-uterine pregnancy are decidedly rare. Among the five hundred cases analyzed by Parry it occurred but three times, and one of these cases he considered doubtful. On the other hand, twin pregnancies in which one foetus is intra-, the other extra-, uterine, constitute so large a proportion of the cases of extra-uterine pregnancy that twin gestation has been reckoned among the causes of that condition.

Considering how nearly the second fœtus escaped attention, it is permissible to suspect that similar cases may have been frequently overlooked.

J. Ewing Mears,
Morris Longstreth,
C. B. Nancrede,
E. Shakespeare,
P. E. Loder,
F. P. Henry, *Chairman.*

THE NEW (METRICAL) SYSTEM IN THE NUMBERING OF SPECTACLES.

BY SWAN M. BURNETT, M.D.,
Washington.

THE want of a universal uniform system for the numbering of spectacles has long been felt and acknowledged, and within the last decade numerous efforts have been made to supply it. Various plans, which it is not necessary here to consider, have been from time to time proposed, but none that seemed to fulfil all the requirements of the case. At the meeting of the International Congress of Ophthalmologists in Paris, in 1867, a committee was appointed to take the matter into consideration and report at the next meeting of the Congress in London, in 1872. This committee failed to agree, and no definite result was reached. The subject was discussed afterward in various ophthalmological journals, and through private correspondence, by some of the most prominent Continental ophthalmologists, the result of which has been a plan to which all who have discussed the matter have agreed. The plan is, with some slight modification, the one proposed by Monoyer, of Nancy.

This plan was adopted unanimously (though not officially) by the members of the German Society of Ophthalmology, which met at Heidelberg in 1875, and also by the International Congress of Medicine, which met at Brussels at the same time. The subject was brought before the International Congress of Ophthalmologists that convened in New York last September, by Prof. Nagel, of Tübingen, and while the members thought it best not to act in an official capacity upon it, nearly all agreed to endeavor to bring the system into general use.

Since the beginning of 1876 the system has been in use in Paris, and Wecker and Landolt have found its advantages fully demonstrated by experience. In future, in nearly if not quite all the writings of Continental ophthalmologists, where the numbers of glasses are designated, it will be in the new system, though during the transition state the old numbers will also be given.

It will thus be seen that this new system, having received the approval of such high authorities, will, in all probability, soon become generally accepted, and it is highly important that the mass of medical men, outside of ophthalmology, should become familiar with the principles of the system in order to judge of its merits properly and lend their aid in getting it established among us.

Briefly, the essential points of the new system are,—

1. *The substitution of the metre for the inch as a unit of measurement.*

2. *Numbering the glasses by their refracting power and not by their focal length.*

The substitution of the metre for the inch as a basis for measurement has many advantages. 1st, The metre is a standard which is recognized, even by law, by nearly every civilized nation in the world, and by men of science everywhere. 2d, The inch is not a uniform measure, having a different length in almost every country. 3d, The inch as a unit of measurement is too high, since it causes all the glasses in common use to be expressed in fractions. Thus, a lens with a focal distance of five inches is expressed by the fraction $\frac{1}{5}$, since it has a refracting power $\frac{1}{5}$ of that of one of 1 inch focal distance. A lens of 36 inches focal distance, because it is 36 times less in its refracting power than a lens of 1 inch focal distance, finds its numerical representation in $\frac{1}{36}$. This makes it very inconvenient when we come to add one lens to or subtract it from another. Very few men are

mathematical geniuses enough to subtract $\frac{1}{24}$ from $\frac{1}{36}$ without the aid of pencil and paper.

If we take, however, a unit so low as the metre, we will find that the large majority of glasses in common use, since they are stronger than the unit, can be expressed in whole numbers, or decimals of a whole number. For example, a lens of half a metre or 50 centimetres focal distance would be expressed by the number 2, as it is twice as strong in its refracting power as a lens of 1 metre focal length; a lens having a focal length of 20 c.m. ($\frac{1}{5}$ of a metre) would find its expression from the same cause in 5, etc.

It is only when we have to deal with glasses whose focal lengths are greater than the metre that we find ourselves involved in fractions, or decimals of a whole number. Thus, a lens whose focal length is 2 metres would be expressible as $\frac{1}{2}$ or 0.5; one of 4 metres, as $\frac{1}{4}$ or 0.25, and so on.

Should we take a lens of 2 metres, or 5 metres, or 10 metres focal length, as was proposed by Giraud-Teulon, we would be able to do away with the decimals altogether; but this would destroy the simplicity of the system, and, moreover, the addition and subtraction of the decimals 0.5, 0.25, and 0.75 (which are the only ones that are required for ordinary use) are as easy as those of whole numbers.

When we come to regard it properly, the numbering of glasses in accordance with their refracting power is not an innovation; as we have just seen in the foregoing paragraph, we have been doing essentially the same thing with the inch as a unit. If we should require a lens of twice the refracting power of the inch unit, it would be expressed by the number 2, and its focal length would be $\frac{1}{2}$ inch, etc.

We do precisely this thing in the new system. We take a lens of 1 metre focal length and call it No. 1, because it is the unit or basis for measurement; and since the lenses are to be denominated in accordance with their refracting power as compared with this unit, it is called a DIOPTRIC. A lens which has twice the refracting power of this unit (with a focal distance of 50 c.m. or 18 inches), is called No. 2, and has therefore 2 D. No. 3 has 3 D; and No. 15, while possessing 15 times the power of 1 D, has of course 15 D. On the other hand, a lens of a focal distance of 2 metres, because it possesses only one-half the refracting power of the unit, is denominated by 0.5 D; a lens of 4 metres focal distance by 0.25 D, etc.

In this manner, by taking a unit sufficiently low and designating the lenses by their refracting power, we have been enabled to accomplish another thing which has long been a desideratum in the arrangement of our boxes of trial glasses,—viz., to construct a series of lenses, the intervals between which shall be as nearly as possible the same.

The numbers of this series are given in the following table, and opposite to each number its (approximately) corresponding number in the old inch system. It will be seen that the interval between the higher numbers is 1 D, and in the lower numbers 0.5 D and 0.25 D.

No. of D.	Old No. (Approx.)	No. of D.	Old No. (Approx.)
0.25	—	5	7
0.5	72	5.5	6½
—	60	6	6
0.75	48	7	5½
—	42	—	5
1	36	8	4½
1.25	30	9	4
1.5	24	10	—
1.75	20	11	3½
2	18	12	3¼
2.25	16	13	3
2.5	15	14	2¾
—	14	15	2½
3	13	16	2¼
3.5	11	17	—
4	9	18	2
4.5	8	20	—

This series gives us all the numbers of which we have need in practice, and has, at the same time, no superfluous glasses.

Of course the No. of D does not give directly, as did the denominator of the fraction in the inch system, the focal length of the glass; but if it is desirable to know this, nothing is easier than to calculate it in the head. You have, say, a lens of 6 D; what is its focal distance? Since the focal distance is the reverse of the refracting power, we have only to divide its unit (1 metre) by 6 to have the true result; and since 1 m. = 100 c.m., $\frac{100}{6} = 16\frac{2}{3}$ c.m. 7 D = $\frac{100 \text{ c.m.}}{7} = 14\frac{2}{7}$ c.m. focal distance. On the other hand, if we know the focal distance in centimetres and wish to find the corresponding number of D, we have only to divide 1 m. or 100 c.m. by the focal

distance to obtain it. Example: A lens of 20 c.m. focal distance will have $\frac{100 \text{ c.m.}}{20 \text{ c.m.}} = 5$ D.

To pass from the old inch system to the new one, and to know the corresponding number of D for any lens of a given focal length in inches, is not at all a difficult matter. We have only to keep in mind that the unit corresponds to about 36 Paris inches, and therefore if we divide this by the number expressing the focal distance of the lens in inches, we have the required No. of D. Thus, if we have a lens of 9 inches focal length, the corresponding No. of D $= \frac{36}{9} = 4$. A lens of 6 inches focal length has $\frac{36}{6} = 6$ D. On the contrary, if we wish to know the focal length in inches of any No. of D we divide 36 by that No. Example: 3 D $= \frac{36}{3} = 12$ inches; or, expressed in accordance to the old system, $\frac{3}{36} = \frac{1}{12}$.

It is unnecessary for us here to point out the numerous advantages and applications of this new system to practice and physiological investigation. In the determination of presbyopia, of myopia and hypermetropia, and in the calculation of the relative refracting power of the different meridians in astigmatism, the extreme facility with which the numbers can be added and subtracted presents a recommendation which alone should insure the adoption of the system. This adoption, however, can only take place by the concurrent action of the whole profession, and it is to be hoped that our medical men, who have a reputation all over the world for taking hold of new ideas and applying them to practice, will not be slow in recognizing the great value of this new system. All those who desire to investigate the subject further, I would refer to the able and exhaustive paper of Dr. Landolt, of Paris, a translation of which can be found in the Royal London Ophthalmic Hospital Reports for May, 1876. This paper has also been reprinted in a pamphlet form by Messrs. Churchill, of London, and is for sale by William Wood & Co., New York.

1104 F Street, January 15, 1877.

Hydrate of Chloral in Cancer of the Uterus.—Having first well washed out the vagina, by means of a speculum introduce a pellet of lint saturated with a solution of chloral, one part to ten. This should be repeated every two hours. The pain, after two or three applications, becomes less, and the discharge less irritating.

NOTES OF HOSPITAL PRACTICE.

NERVOUS INFIRMARY.

CLINIC OF S. WEIR MITCHELL, M.D.

Reported by C. C. Vanderbeck, M.D.

CASE I.—The first patient before us this morning, gentlemen, is a very interesting case for clinical study, and one that will require some labor to thoroughly elucidate. The man, a pallid, weary-looking person, at present is engaged in no occupation, though for many years a miner among the various mines of Nevada. He was working chiefly in silver mines, occasionally in copper and iron, never in lead, but often or usually in damp places. He assures us that previous to four years ago he enjoyed excellent health, and that the first deviation from this condition that he noticed was a pain in the right thigh. Asking him to point out the situation of the pain, he describes accurately the course of the great sciatic nerve, and follows out its main branches. In other words, sciatica of the right side was his first trouble. Three months after this, he says, his penis became very red, and he experienced some difficulty in voiding his urine, but he had no discharge of matter. About this time the pain extended from the thigh to the small of the back. He now felt unable to work any longer, and left the mining district for his home in Philadelphia.

Watching the face, you observe every little while a jerking of the lids,—a facial tic. This he noticed slightly ten years ago, but it gave him no particular uneasiness; and we may thus explain why he tells us that his trouble began but four years ago.

These difficulties in gaining a knowledge of the history of cases are continually met with, so that the art of cross-examination is nearly as useful to the doctor as to the lawyer.

But besides his sciatica—lumbar pain and facial tic—he has also a pain which irregularly intermits. It is a superficial pain, although he calls it a headache, and it affects the infra-orbital and supra-orbital nerve-regions. The tic is painless, except when the orbital neuralgia is affecting him; then the twitching is associated with pain at each jerk. He is blind in the left eye, the result of a piece of steel entering the eye, from the pick of a fellow-laborer, in

1860; but this seems to have no causal relation to the neuralgia. He had a chancre sixteen years ago, but was never affected with alopecia, eruptions, sore throat, or any of the various constitutional outbreaks of syphilis. He has a sensation as if copper were in his mouth, but the fact that he has lately been taking iodide of potassium will explain this. The sciatica, it is to be remembered, has never left him since it began, four years ago. So that now, with the sciatic pain, the orbital neuralgia, and facial tic, he is most assuredly a nervous patient. An important point to settle is whether the syphilitic poison is at the bottom of all this trouble. The fact of there being no secondary symptoms after the chancre is against this view. Yet it is possible that after years of latency the syphilitic disease may have thus affected the nervous system. This is another case for therapeutic diagnosis, a point I referred to at some length at one of our recent clinics.

And I say this because of the extreme difficulty in being sure if nervous symptoms arise from syphilis. I have seen one case where, after ten years of absolute health, a syphilitic brain-tumor formed. I have seen two others in which the victims, both men, were utterly ignorant of ever having had syphilis, but both of them had lesions, undoubtedly, of this nature, affecting, finally, the brain; although twenty-five years of immunity had gone by in the one instance, and a yet longer time in the other. I shall, however, consider here both the character of the present malady and the fact that this man has the anæmic constitution which favors neuralgic developments. The disorders in the way of tic and neuralgia, without other head-troubles or nerve-palsies, are unlikely to be syphilitic, and yet they may be. We shall, therefore, provide for the case by ordering iron freely, and by also giving iodide of potassium in increasing doses. I should add that he has taken iron in small doses and arsenic and quinine without avail. As to the iodide, there is some need for caution. It often causes, at first, nasal catarrh, aching of the cheek-bones, and headache; but these pass away. Still, it is wise at first to give thrice a day only five grains, largely diluted. In rare cases it is very badly borne. I once spent a night of anxiety with a patient who was so poisoned by five grains of iodide that his teeth became loose, his face and neck and tongue swelled enormously, and he very nearly suffocated. Usually, by cautiously adding to the doses, even these sensitive people learn to bear it well, so that the dose may be pushed to thirty or fifty grains thrice a day. He is also to take twenty grains of iron oxide thrice a day.

The result was, as Dr. Mitchell remarked, alike instructive and amusing. Owing to an accident, the man took the iron only, and in two weeks presented himself at the clinic, with the statement that he was much better, both as regards his pain in the back and also his facial neuralgia. Dr. Mitchell did not consider that the remarkable gain in health excluded the possibility of syphilis, but concluded to continue the iron, remarking that in small doses it had done the patient no good.

Case II.—Man, æt. 28. This patient comes to us on account of seminal emissions, which he has had twice a week, at least, for ten years, and which are now, he thinks, seriously affecting his nervous system.

It occasionally happens that nocturnal emissions are charged with more evil than belong to them; but at any rate, when serious nervous symptoms are present, the relation of the emissions to the cause will bear close investigation.

History.—The patient, a cabinet-carver, describes the nervous affection thus. At times, for fourteen years, he has had dizziness: not so severe as to cause him to stagger, but to make him feel as if he might fall, and with this there is some confusion of mind but no unconsciousness; and there is also a sense of suffocation. This passes away in a half-hour or so. The conditions are intensified when in a crowd or when there is much confusion or excitement, or many things passing before his eyes.

He is frequently in low spirits, his depression amounting to a mild form of melancholia. He had a chancre two years ago, followed by various secondary manifestations of the disease. He has some eye-difficulty; he works and reads with the left eye alone. This trouble with vision antedates the vertigo and other nervous symptoms by several years. Now, gentlemen, this is an intensely interesting case, especially as regards its etiology. While syphilis and seminal emissions are sufficient to account for such a disturbance of the brain-circulation and for the other nervous

manifestations, yet may not they be more likely the result of an eye-strain? It is an important point in the history that he sets the syphilis and emissions as occurring after the nervous symptoms, while the eye-strain is said to have existed some time before.

In making an ophthalmoscopic examination, the eye-grounds do not show anything abnormal. The heart and urine must be carefully examined. Whatever the cause may be, one thing is certain, the abnormal eyesight must be corrected, as it is sufficient to keep up the unpleasant vertigo.

Let us also give him ten grains of bromide of potassium t. d., and, on account of the possible dependence of the head-symptoms upon the prostrating effects of emissions, the perineum may be galvanized, applying one pole of the galvanic current to that part, and one to the back; the direction of the current being immaterial.

We shall order him also pills of quinine, iron, and strychnia. One word in regard to the elixir of these drugs. Dr. Keating reminds me that this preparation is of a very uncertain strength, as the various chemists have different formulæ. One preparation contains one-sixtieth of a grain of strychnia to the teaspoonful, another one-hundredth grain to a *tablespoonful.* Now, we send out many prescriptions for this elixir; if the first strength be used, the dose would be right, if the second, the dose would be insufficient. There ought to be a fixed and uniform formula for a preparation containing such a potent drug.

To conclude, we give a tonic, treat the perineum with galvanism, and correct the probably or surely defective eyes.

I know of nothing more annoying than these cases of seminal emissions. There is a popular creed that any emission is a sign of disease; but, while many continent persons never have them, it is quite sure that even healthy people who thus at rare intervals get rid of the excess of a normal secretion are more or less disagreeably disturbed by them, and rise next day with a sense of lassitude and weakness which does not follow the act of coitus. Nevertheless, it is hard to regard these rare emissions as other than a natural relief. The patient may be reassured in mind if they are rare incidents,—once a month, for example. There is usually a belief that it is the loss of a vital fluid which is the evil, but I fancy it is of no more importance to lose semen than saliva. It is the peculiar orgasm which accompanies its loss which is of moment. When frequent, it leads to a state of mind which is perhaps due in part to over-anxiety, and in part to reflex influences, and which is most deplorable and only too familiar to physicians. Cauterization of the urethra is usually a failure, or worse than a failure. Long-continued daily use of a full-size bougie is of more use; but some sturdy outdoor life offers the surest relief, and of all local means galvanism is the best. But the full story of the symptoms and their treatment is too long to detain us here.

TRANSLATIONS.

Carbolic Acid in Simple Angina, Diphtheria, and Croup (*O Correio Medico,* Lisbon, 1876, p. 274).—According to Lemaire, carbolic acid water (½ or 1 part to 100), used as a gargle, is an excellent means for combating simple anginas. The sensibility of the mucous membrane and the other abnormal symptoms are promptly extinguished under the influence of this remedy. In the more severe throat affections, such as diphtheria and croup, the same agent is recommended as a gargle (½ to 100), as a cauterizer (2 to 100), as an inhalation, and as a drink. Declat tried the same remedy with good result internally, externally, and as a hypodermic injection, using in the last method 5 grammes of a solution of the strength of 1 part to 100. The observations reveal that the false membranes separate, and the subjacent mucous membrane is modified by the treatment.

The carbolic acid does not act as a cauterant, for dilution produces beneficial action; and it is not demonstrated that it exerts any chemical action on the false membranes, as some have thought. It appears most reasonable that it acts as a parasiticide, destroying the proto-organisms which constitute the fundamental part of the false membranes and which exist in the circulatory system, since the local alterations are no more than the expression of zymotic influence. J. B. R.

Case of "Athetosis."—Dr. Martin Bernhardt (*Virchow's Archiv,* Bd. lxvii.

p. 1) gives notes of a case of this curious affection, first described by Hammond, and of which less than ten instances have been recorded. The patient was a boy, 12 years of age, born of healthy parents. Two of his family, a brother and sister, had suffered with chorea. He himself was healthy up to the age of four, when he suffered from some acute affection, the nature of which was not known, but which was, presumably, one of the exanthemata. After this, some irregularity in the motion of the foot was observed, together with abnormal movements in the right hand. The patient went to school, however, and learned to write with the left hand. At the time of examination the boy was well developed and nourished. Suffered from frequent headache in forehead and temple, where the surface, particularly on the left side, was sensitive to the touch. Sight normal. Tongue thrust slightly to the right, and showed involuntary contractions. At rest, both sides of the face looked alike. The left eyelid was closed tighter, the left side of the mouth was somewhat elevated. Smiling, however, drew the mouth towards the right, and occasionally the same movement was made during talking.

The entire left half of the body preserved its mobility and sensibility intact. The right shoulder- and elbow-joints were freely moved, only the movements here seemed somewhat weakened and slow. No involuntary movements of the head, shoulder, and forearm were observed. With the exception of occasional severe pain in the right upper extremity, nothing abnormal was observed on this side. Walking any distance exaggerated the deformity of the left foot (pes varo-equinus). He could only stand on the right foot alone. The recently described "knee-phenomenon" was observable on both sides. The "foot-phenomenon" was absent on both sides, or at most barely noticeable. When the patient was quietly sitting, while his attention was absorbed in conversation, the right hand with its fingers appeared at perfect rest. The moment the patient's attention was directed to these members, a curious series of movements of the right fingers began. In rapid succession the fingers were adduced and abduced, flexed and extended, particularly the thumb, the little finger, and the index finger, while the others remained quiet. The hand itself seemed, in the mean time, immovable on the wrist, but on the flexor and extensor sides of the right forearm a continuous play of the muscles could be observed, the muscles themselves and their sinews appearing in continually changing relief under the skin. The sensibility of the right side was less than that of the left. When the patient tried to suppress these muscular movements by an exertion of the will, they either continued unchanged or became more violent. The right forearm was larger than the left, a condition which could only be ascribed to the continual involuntary muscular movement, since the left alone had been in active use since early childhood. Slight movements were also observed in the right foot, continuing even during sleep. The patient's condition had not changed during the seven years previous. Treatment by electricity, tonics, etc., continued during some months, seemed to exercise little or no influence upon the affection. x.

Functions of Nerves discovered with the Aid of Electric Currents.—M. Onimus (*Soc. de Biologie: Le Mouvement Méd.*, 1876, p. 699) has undertaken a series of experiments upon the excitation of nerves by the induced current. The pneumogastric nerve first occupied his attention. This, as is known, has been regarded as a cardiac inhibitory nerve. Onimus's experiments show that twelve to eighteen excitations per second are required to arrest the action of the heart. A less number reduces the number of pulsations, but renders them more energetic. One shock per second, far from arresting the heart's action, causes one contraction more than the normal after every shock. Thus, in a curarized frog, one shock per second caused the heart to make sixty pulsations per minute, while in the normal condition it had only made fifty pulsations. These investigations go to show that, instead of arresting the heart's action, excitation of the pneumogastric augments the number of its pulsations. The same fact has been observed regarding all the organic rhythmic systems: thus, the peristaltic contractions of the large intestine, which average about eighteen per minute, are suspended under the influence of the constant current, and are increased in number and energy when only a limited number of shocks are transmitted. The action of the pneumogastric, therefore, is not especial, or different from that of other nerves. It simply serves to connect various ganglia. x.

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EDITORIAL.

THE UNITED STATES PHARMACOPŒIA.

THERE are on the table before us two pamphlets, one proposing and the other opposing certain changes in the method of revision and in the character of the United States Pharmacopœia. The first of these is by Dr. Squibb, of New York, and will, we presume, be furnished upon application; the second is from the pen of the chief editor of this journal, and will be sent to any physician who has sufficient interest to enclose the request, his own address, and a three-cent stamp to J. B. Lippincott & Co. The subject is one of the gravest importance, and should command the attention of the whole profession. We conceive it to be the duty of every one who expects to be a delegate to the next Convention to read carefully both of these brochures and to endeavor to get all the light possible before going to Chicago. Unless this is done, there is danger that an unwise measure may be carried, or a wise measure lost, through the personal predilections of some popular leader or leaders. It is well known that the Pharmacopœia is now revised by a Committee of Revision, who are every ten years reappointed by a National Convention meeting at Washington. The first proposition of Dr. Squibb is that the American Medical Association shall by resolution relieve the National Convention "from any farther acts of ownership, control, or management of the Pharmacopœia." Stated in this blank way the proposed action looks ludicrous, and no amount of fine writing or of plausible schemes as to the method of securing possession can cover over the fact that the core of the matter is the assumption by the Association of property to which it has no legal and, from one point of view, no moral right. A single member of the Committee of Revision, much more the Committee as the Whole, could by legal injunction undoubtedly bar the whole proceeding: the very name United States Pharmacopœia is protected by the law of copyright. The Association by the passage of such a resolution would undoubtedly expose itself to a snubbing not undeserved. Suppose the National Convention say, We do not choose to be relieved: what then? The Association must humble itself, or if it persist there will be two national Standards,—one known as the United States Pharmacopœia, the other as the ——

It is plain that nothing but imperative necessity should impel the American Medical Association to incur the risk of such a condition. Does such necessity exist? Certain defects in the present Pharmacopœia are supposed to furnish it. Our national Standard is not perfect, but, on the whole, it is very good, and, so far as our observation goes, most eminent pharmacists will support the assertion that it is superior to that of Great Britain. More than this, no asserted defect of the Pharmacopœia can be a valid reason for the proposed interference. The National Convention is composed of experts chosen from all parts of the country; and if any eminent pharmacist or physician cannot demonstrate to it the superiority of his ideas over the old, it is probable that his ideas are not correct. A decision rendered by men of especial knowledge and training, selected for the purpose, is far more apt to be a wise one than that reached by such an assemblage as the American Medical Association, popular and general rather than especial in its character. Were it a question of eye-surgery, whose verdict would command respect, that of the American Medical Association or that of the Ophthalmological Congress? and what

would be thought of an appeal from the Congress to the Association? Every change in the character of the Pharmacopœia, and in the method and frequency of its revision, proposed by Dr. Squibb, the National Convention is perfectly competent to adopt. If we mistake not, some of them he has already laid before that body. Whether he has done so or not, maintained harmony, one standard, retention of present values, and a wise decision, would probably be reached by such reference; whilst an attempt on the part of the Association to assume authority means discord, doubtful decisions, upsetting of the work and customs of half a century, and, finally, two standards and the multitudinous curses of such a condition. In an assemblage of unlimited numbers and very limited time, like the American Medical Association, no full, prolonged debate is possible. It seems very folly to expect careful consideration and wise deliberations on such a subject as the present: the whole time of meeting would not suffice.

Dr. Squibb urges that the National Convention is not really representative of the country. The law of its existence prescribes its composition as of delegates from "the several incorporated State Medical Societies, the incorporated Medical Colleges, the incorporated Colleges of Physicians and Surgeons, and the incorporated Colleges of Pharmacy throughout the United States." This is a more thorough representation than that of the American Medical Associations, which receives delegates only from State and County Medical Societies. If the numbers of the National Convention are in practice small, it is because there are comparatively few men in the United States fitted by culture and experience to discuss the questions of the Pharmacopœia. Yet at the last meeting, with the whole South aloof, there were represented thirty-one incorporated bodies. We repeat it, the profession had far better trust its Pharmacopœial interests to the decisions of such a body than to those of the American Medical Association.

It will be answered, that it is not the American Medical Association but its Pharmacopœial Council which is to decide questions concerning the Pharmacopœia. Probably this is what Dr. Squibb intends; for he proposes the following by-law: "There shall be a Council established, to be called 'The Pharmacopœial Council of the American Medical Association,' for the sole purpose of taking the entire charge, control, and management of the Pharmacopœia of the United States of America, under the ownership and supervision of this Association; for the benefit and interests of the general medical profession, as represented in this Association." This by-law certainly indicates that Dr. Squibb expects that all Pharmacopœial questions shall be decided by the Council, which is to be composed of a president, appointed by the Association, a representative of the medical service of the army and navy respectively, appointed by the respective bureaus, and two pharmacists, appointed by the American Pharmaceutical Association. How will this work in practice? As the proposer of the scheme, and as the most capable member of the body, Dr. Squibb will undoubtedly be appointed president of the Council. To him, therefore, is the American Medical Association asked to commit the interests of the whole civil profession, from the Pacific to the Atlantic, from the Gulf of Mexico to the Canada boundary line. For this purpose revolution is to be let loose and a career of contention entered upon whose end no man can foresee.

In the last Committee of Revision the general medical profession was represented by Drs. George B. Wood, Joseph Carson, Robert Bridges, of Philadelphia; W. Manlius Smith, of New York; John C. Riley, of Washington; Thomas Jenkins, of Louisville; Charles A. Lee, of Buffalo; J. S. Welford, of Richmond; and F. Wentzell,

of California. It may be that the medico-pharmaceutical lore of the country would be better represented by Dr. Squibb than by such a body of men; but the superiority does not at first glance appear sufficient to warrant the confusion and risk of change.

Under all the circumstances it becomes the imperative duty of every medical journalist in the country to study closely the sayings of Dr. Squibb in regard to the matter, and to endeavor to discover what sort of a national Standard he would fashion. In our next issue we hope to be able to lay before our readers the result of such an investigation.

LEADING ARTICLES.

RECENT PROGRESS IN THE TREATMENT OF VENEREAL DISEASES.

II.—SYPHILIS.

(Continued from page 228.)

CLOSELY connected with the inunction method of treatment is that by means of the mercurial bath and fumigation. As regards the former, there is no doubt of its efficacy in infantile syphilis, and it is to be recommended in preference to inunction, as equally convenient and decidedly more pleasant in the case of young children. Ten grains of corrosive sublimate in about a bucketful of warm water serve for one bath. The simple precaution of tying the waist of a flannel skirt around the child's neck and spreading it over the tub will prevent danger from splashing the liquid or conveying it otherwise to the mouth. This bath may be given once or twice a day, and may be kept up until all symptoms of syphilis have disappeared, and for some time longer.

Fumigations do not continue to enjoy the favor which was at first gained for them by the active advocacy of the late Langston Parker* and other prominent syphilographers in this country as well as abroad. Heorteloup† has recently written on the subject, recommending fumigations (of calomel) — 1, administered alone in cases of early ulcerating rashes, mucous patches, etc.; 2, combined with iodide of potassium in cases of later lesions, tubercular, ulcerating pustulo-crustaceous, and deep ecthyma.

When a large number of ulcerative lesions are scattered over the surface, fumigation would seem to be the preferable method, as combining a certain local stimulating effect with the constitutional effect of the mercury. A case has been recently reported in which local fumigation of the leg in obstinate syphilitic ulcer proved of marked benefit. The plan of fumigation is, however, a difficult one to carry out, excepting in a hospital; and so, in spite of numerous modifications for its more convenient use, it seems to be losing rather than gaining favor at the present time.

The indirect treatment of infantile syphilis by means of the breast-milk of the human female under anti-syphilitic treatment, or of the milk of animals to whom specific remedies have been administered, may be considered as still *sub judice*, testimony on the facts being of the most conflicting character. Kahler‡ has made a number of experiments by electrolytic analysis, but has failed to find mercury in the milk, even when inunction was used so thoroughly that existing syphilitic lesions in the woman were being rapidly cured. He admits that in certain cases infants to whom no mercury has been given improve while nursing a mother taking that agent. Klink§ arrives at conclusions exactly the opposite of those by Kahler. He relates the case of a woman nursing her child while undergoing the inunction treatment, in whom mercury was undoubtedly found after the thirteenth inunction. The child, also syphilitic, was cured. Better methods of analysis than those heretofore employed are necessary to settle the question.

Two plans of treatment remain to be described,—the abortive and the expectant. The hope of cutting off the disease, of averting syphilis at its very beginning, has always been indulged, and the means suggested to this end have been very numerous. Cauterization with the actual or galvanic cautery, with chemical applica-

*The Modern Treatment of Syphilitic Diseases. Fifth Edition, 1871.

†Traitement de la Syphilis par les Fumigations mercurielles. La France Médicale, Nos. 43 and 44, 1875.

‡Untersuchung der Milch von Frauen während der Inunctionscur. Vierteljahrsschr. f. die Prakt. Heilk., xxxii., 1875.

§Untersuchungen über den Nachweis des Quecksilbers in der Frauenmilch während einer Einreibungscur mit grauer Salbe. Vierteljahrsschr. f. Derm. u. Syph., Heft 2, 1876.

tions, extirpation, enucleation, etc., may be mentioned. "No one, however," says Sigmund, "who has followed up a number of cases through series of years will have any hope from such measures." Indeed, in the light of our present pathology it seems almost incredible that such should be thought of for a moment. Excision of indurations, however, may be practised with a view to prevent phymosis, etc., as well as the formation of vulnerable scars, and will often aid in the cure of stubborn local troubles and thus shorten the course of the disease.

The expectant plan of treatment has its advocates, who allege the existence of mild forms of syphilis spontaneously curable and neither requiring anti-syphilitic treatment nor likely to be benefited thereby. How such cases are to be distinguished with certainty in their earlier stages has not yet been clearly demonstrated; and in this lies the weakness of the theory. Fournier goes into the subject with great thoroughness, and with the most convincing logic shows the burden of proof to lie with the advocates of the expectant plan, and the terrible responsibility which they must bear if their theory should prove without foundation.

It may be observed in the foregoing remarks how little allusion has been made to the treatment of syphilis by iodine, almost all that has been said having relation to the various forms and uses of mercury. This may be explained by the comparatively inferior and limited sphere to which iodine has in recent years been relegated. Within certain limits iodine is invaluable; but these limits seem to be more defined, if somewhat narrower, than formerly.

The chief progress which has been made in the general therapeutics of syphilis during the last ten years has been in the following ways: increased clearness in the views held regarding the period at which the methodical general treatment of syphilis should begin; more certainty in the methods of treating syphilis in pregnant women and in children; greater success in the treatment of gummatous, particularly nervous and visceral, syphilis; more active measures in prophylaxis.

According to Sigmund, the period at which the general treatment of syphilis should begin has now been decided by extended observations to be the moment at which various symptoms show themselves for the first time at a distance from the point of origin. Jonathan Hutchinson,* however, recommends that mercury should be given as soon as the chancre shows any induration, and asserts that under these circumstances many cases never have any secondary symptoms. These opinions are not so different as they appear at first glance. If the induration can be established, it is as much a sign of the generalization of the poison, and essentially as distant from the origin of the disease, as if it were at the remotest extremity of the system.

In reference to the treatment of syphilis during pregnancy, Sigmund regards inunction as the best method. In his experience, many women on whom the papular lesions have already appeared have been cured of these manifestations, and have given birth to living children showing no signs of disease, and continuing to live. Treatment begun after the sixth or seventh month is not so hopeful; but still, even this often succeeds, and, with proper local treatment, none of those accidents which are otherwise so frequent about the genital passages need be looked for. With respect to the treatment of syphilis in children, much may be expected from placing them under the best hygienic conditions. Without this nothing can be hoped from treatment alone. This principle cannot be too strongly asserted. Next to the nourishment, which in infants should always be breast-milk, come, in Sigmund's opinion, preparations of the iodide of iron and baths of corrosive sublimate. The gummatous—tertiary—forms of syphilis have long been treated by iodide of potassium: it is, in fact, one of the axioms of the French school of dermatology that mercury is to be used in the earlier stages of syphilis, and iodine in the later. Sigmund, however, has within the last year or two treated a series of cases of serpiginous ulcers, gummata of the nose, bones, etc., by inunctions of unguentum hydrargyri. These patients had previously taken enormous doses of iodide of potassium, and had also used mercurial frictions in vain. Sigmund attributes his success in these instances to the careful use of proper hygienic measures, together with the most assiduous local treatment. In extensive suppuration of gummatous ulcers, as well as in cases of diphtheritic exudation upon the external skin, concentrated solutions of sulphate of copper (1 : 3), carbolic

* Use of Mercury in Syphilis. Lancet, 1874.

oil (1 : 6 linseed oil), or paste (1 : 5 linseed oil and gypsum or chalk) are recommended by Sigmund as local applications. The diseased localities are to be very carefully cleansed and covered up two or three times a day with empl. saponis, empl. hydrarg., āā part. æq., in such a way that every portion is touched. As to the mouth, nose, pharynx, etc., they should be thoroughly and frequently cleansed with solutions of carbolic or salicylic acid, permanganate of potassium, and the like, and also pencilled with the glyceroles of these substances.

In the treatment of visceral and nervous syphilis, the combination of hydro-therapeutics and the use of mineral waters, with the administration of mercurial preparations and iodine, now so general, together with the increased certainty in diagnosis of these affections, renders their cure much more usual than formerly.

Finally, with regard to the method of administration of mercury, considerable difference of opinion exists; some syphilographers, as Fournier, asserting the advantage of short, interrupted courses of treatment; others, as Sigmund, favoring the continuous exhibition of small doses of this medicine. The latter plan of treatment is supported by the investigations of Keyes* upon the blood of syphilitic patients taking mercury. This observer found that minute doses of mercury increase the number of red corpuscles and act as a general tonic upon the system, and that in such doses the drug may be continued indefinitely without losing its beneficial effect. A. Van Harlingen.

CORRESPONDENCE.

New York, February 1, 1877.

To the Editor of the Phila. Medical Times:

DEAR SIR,—Dr. Charles Heitzmann, at the January meeting of the County Medical Society, read a paper on "*The Cell Doctrine, in the Light of Recent Investigations*," in which he attempted to prove that the now generally accepted views on this subject were erroneous, and had been comparatively barren in the practical result of elucidating much that we ought to know, both in physiology and pathology; and then proceeded to detail with minuteness his own *bioplasm theory*, according to which the ultimate form of organic matter is not a cell, but a granule or corpuscule of living material or protoplasm. He stated that he had come to this country expressly for the purpose of teaching the new doctrine, and that he was confident that ere long it would supersede that which is now so universally received.

At the last meeting of the Medico-Legal Society, February 7, Dr. Alfred L. Carroll, of New Brighton, Staten Island, read an able and interesting paper on "*The Difference between Insane Criminals and the Criminally Insane*." Without attempting to define insanity, a matter which he considered it impossible to do satisfactorily, he went on to say that its aspect most interesting to the public is that which relates to criminal actions, especially to homicide; since it has latterly become the fashion with counsel for the defence to impress upon jurymen that killing is *prima facie* evidence of mental unsoundness, and to retain so-called medical experts as special pleaders, not to give an impartial scientific opinion, but to concoct the most ingenious case for the defendant. It is beyond question, however, that there are numerous phases of insanity clearly distinguishable by a professional observer, but not easily to be perceived by an unpractised eye; and the dispute between law and medicine on these obscure forms of mental disease arises from the fact that the legal notion of insanity remains unaltered from a past age, when nothing but total dethronement of reason was recognized as lunacy, while modern medical authorities on the subject have learned to detect early stages and less marked varieties. The law has remained stationary in regard to it; but medicine has been making constant advances in its study. The former makes the mistake of regarding the insane (1) as necessarily unable to distinguish between right and wrong, and (2) as necessarily suffering from delusion. With our present knowledge this is evidently untenable and absurd. The kleptomaniac, for instance, knows that he is doing wrong, but has not the strength of will to resist the temptation. But even supposing forensic doubts of diagnosis were set at rest, the question would remain whether all these less defined cases of lunacy ought to be excluded from the operation of criminal law; and this question would be unhesitatingly answered in the negative by some of the ablest alienists, who, when they certify to a patient's insanity, do not necessarily mean to imply that he is unaccountable for any and all of his actions. In other words, there is a distinction to be drawn between insane criminals and criminal lunatics; and it is quite possible that a person whose insanity would absolve him from responsibility in one direction may commit crime from a sanely criminal motive, if such an expression is permissible. In any given case the first question to be considered is whether the criminal act was the direct outcome of the actor's insanity; the second, whether, if so, the person was incapable of re-

* The Effect of Small Doses of Mercury in Modifying the Number of the Red Blood Corpuscles in Syphilis. By E. L. Keyes, M.D. Am. Jour. Med. Sci., Jan. 1876.

sisting the insane prompting. Even Maudsley admits responsibility in some cases, and he further says, "There can be no doubt that the insane inmates of asylums are to some extent deterred from doing wrong by the fear of what they might suffer."

Dr. Carroll then went on to speak of homicide in its relations to various forms of mental disorder, treating first of dementia, imbecility, and chronic mania, and then passing on to acute mania, which, he said, occurs in those of a neurotic temperament, and is never developed without marked premonitory symptoms.

Partial insanity is the great ground of medico-legal disputes, and has not infrequently served as "a letter of marque to permit unlimited ruffianism."

The question is, Is the act or crime committed in the *line* of the actor's insanity? If not, he is legally responsible for the deed.

Transitory insanity, the speaker said, was, as a rule, to be referred to epilepsy.

Morbid impulse is never met without antecedent or concomitant symptoms of insanity, which cannot fail to be perceived if care is observed. Therefore if a person feels a strong desire to commit murder, for instance, and cannot overcome that desire, it is his duty to put himself under proper restraint at once. If in any case there are no antecedent symptoms, it is safe to conclude that it is not true morbid impulse, but only quick temper; and it behooves us always to examine very carefully whether there is not a motive for any given action.

On the question of *moral insanity* the speaker agreed with Blandford in denying that the absence of the moral sense proves or constitutes insanity any more than its presence proves sanity. In any particular case the insanity is to be judged by other acts.

Dr. Carroll quoted freely from the best-known alienists (especially from Maudsley, who of all modern authorities is inclined to be the most lenient in his judgment) to show that there has been a gradual tendency to fix legal responsibility more exactly, and that the mere fact that some form of insanity is proved does not exonerate the person from liability to punishment. In conclusion, he maintained that even where murder is apparently motiveless we should insist that the murderer be segregated from the community for life, so that it will no longer be possible to have such a one committed to an asylum as insane, and almost immediately afterwards set at large, on the ground that his insanity has been cured, since all authorities agree that homicidal mania, from whatever cause arising, is very apt to recur. The wisest plan, he thinks, would be to refer all testimony concerning mental unsoundness to a permanently organized commission in lunacy, from whose report an intelligent decision might be reached. A step in the right direction was made by the New York Act of 1874, directing that the plea of insanity be received only at the time of the arraignment, and empowering the court to appoint a commission of inquiry; but much still remains to be done to bring law and medicine into equitable harmony. Meanwhile, jurymen and jurists will do well to bear in mind that insanity, if genuine, is shown in other ways than by a single act, that hypothetical questions are useless (each case requiring thorough examination on its own individual merits), and that a person whom no physician would hesitate to pronounce insane may nevertheless commit crime with a reasoning, culpable purpose.

After the discussion on Dr. Carroll's paper had been concluded, an interesting communication was read from Dr. Edward G. Loring, in reply to a number of inquiries which had been submitted by some of the members of the Society (not medical men) at the last meeting, in reference to the eyesight of the public-school children. Among them were the following:

Is bad air injurious to the sight?

What is the effect of good or bad type on near-sightedness?

What is the effect of insufficient light?

From what direction should the light come?

In answer to the first, Dr. Loring showed that bad air had a direct tendency to produce even grave affections of the eye, like purulent ophthalmia, as is proved by the fact that recovery not infrequently takes place in these cases when pure air is substituted, without the use of any other means whatever; and in answer to the last, that the light should come from a little above the level of the eye and fall over the left shoulder.

At the last two meetings of the Academy of Medicine the topic of discussion has been: *The Relations between Croup and Diphtheria, and the Value of Tracheotomy in each.* On the first evening the principal speakers were Drs. A. Jacobi, Austin Flint, Sr., and J. Lewis Smith; but nothing especially new or notable was developed in regard to this frequently debated subject. The first-named doctor contended for the identity of croup and diphtheria, while the other two were opposed to this view; though Dr. Smith acknowledged that it was often impossible to make a differential diagnosis when diphtheria was prevalent in a community, and stated that he believed the two were not infrequently associated at such times. Dr. Jacobi spoke most at length on tracheotomy. He had performed this operation about two hundred times, he said, with very fair results, and stated that the great and only indication which guided him in resorting to it was imminent danger of suffocation. When this was present he never hesitated under any circumstances to tracheotomize the patient.

On the second evening, Dr. John C. Peters, who is always indefatigable in such research, gave some very interesting historical facts in regard to diphtheria, which he said there was every reason to believe was by no means a

disease of modern origin. On this occasion he devoted himself principally to a résumé of its outbreaks and course in this country. In the years 1633 and 1663 a disease of the mouth and throat corresponding exactly to it made its appearance on two vessels coming across the Atlantic from England. In Jedediah Morse's "History of New England" the great epidemic of 1735 (Dr. Douglass's) is described. It was called the "throat distemper," and was characterized by the appearance of white or ash-colored spots in the fauces. In many of the cases there was also a rash: so that it would seem to have been associated with scarlatina, as has so often been the case since then. Dr. Peters then quoted from Gallup's "History of Vermont" to show that through the eighteenth century, and in the beginning of the nineteenth, various epidemics of the disease occurred, not only in that State, but also in New York, Pennsylvania, and Massachusetts. In 1814 there was a very severe outbreak of "putrid sore throat" in Prince George's and other counties of Virginia, and one family was mentioned in which nine out of its ten members were carried off by it. The first cases of diphtheria, distinctly recognized as such, ever reported in America are recorded in the Proceedings of the New York Pathological Society for 1845. On July 11 of that year Dr. Willard Parker presented to the Society the tonsils, larynx, and trachea taken from a patient who had died of the "diphtheritic croup of Bretonneau," mentioning that the disease had then for some time been prevalent in this city, and that he himself had seen ten cases of it. Its chief characteristic was the deposit of false membranes, which not only covered the tonsils, but lined the whole of the larynx and trachea as well. Depletion was shown to be positively injurious, and the treatment by calomel and senega proved the most successful. Drs. Sabine and Merton also related cases. In 1846, Dr. Peters himself reported a case of diphtheritic croup at the Pathological Society, in which the larynx and trachea were filled with false membrane. From this date the disease was lost sight of in this city until 1857, when two cases of death were reported from it. In 1858 there were five deaths from it, and fifty-three in 1859, when Dr. Jacobi was the first to call attention to it. During 1860 no less than four hundred and twenty-two lives were lost by it; and at this time a report concerning it was issued by the city health inspector. In this it was stated that diphtheria (which was transported thence from France) was prevalent in England in 1858. It was not known how it came to New York. The report went on to say that it was not a contagious disease, but that it seemed to have some relation to scarlatina. Furthermore, it stated that croup, diphtheria, and scarlatina seemed to be "wonderfully mixed up" in this city, and that sometimes all three appeared on one death-certificate by the physician.

The following figures show the mortality from croup and diphtheria respectively in New York since 1860:

Year.	Croup.	Diphtheria.
1861	685	453
1862	685	504
1863	985	981
1864	754	734
1865	449	589
1866	257	334
1867	76	38
1868	342	277
1869	255	158
1870	421	308
1871	457	238
1872	675	446
1873	734	1133
1874	594	1665
1875	758	2311
1876	527	1750

The epidemic of diphtheria seems to be slowly but steadily declining at the present time.

At the last meeting of the Neurological Society, a learned and elaborate paper on the *Psychological Pathology of Progressive Paresis*, which was illustrated by specimens and drawings exhibiting the course and microscopic changes of this disease, was read by Dr. Edward C. Spitzka. The drawings, which were executed by himself, showed the gentleman to be as admirable an artist as he is an accomplished neurologist.

The report of the health officer of the port, Dr. S. Oakley Vanderpoel, for the past year presents several points of special interest. In a season rendered unusual from the number of places in which *yellow fever* prevailed as an epidemic, as well as from its presence at Dix Island, in the Lower Bay (except during the month of May), from February until the latter part of October not a properly authenticated case reached the city by way of the sea, nor was a sailing-vessel or steamer so restrained as to retard her regular sailing. From the various Southern and West Indian ports where yellow fever has prevailed more or less in an epidemic form during the past season, three hundred and sixty-three vessels arrived between the 15th of May and the 15th of October, ninety-nine of which had the disease on board, either while in port, on the passage, or after their arrival here. Three hundred and fifty-five cases of yellow fever were thus reported,—two hundred and thirty-nine at the port of departure, sixty-seven on the passage hither, and thirty-nine in this port. Sixty patients were treated in the hospital, of whom thirty-nine had yellow fever, while most of the others were suffering from some form of malarial fever resembling it. Of the former, eleven died, showing a favorable percentage of recovery, which Dr. Vanderpoel attributes, in a great degree, to the airy and healthy location of the Quarantine Hospital.

The report goes on to say, "The presence of yellow fever at Brunswick, Savannah, and Charleston, all lying within the average time assigned as the incubation period of the disease, rendered it necessary that some arrangements should be made whereby the commerce from these ports should remain unrestricted. It was directed that no passengers be taken on vessels coming from these ports. This left me to deal with the crew and cargo only. Full hygienic precautions were suggested to the steamers plying between Savannah and New York, which, on their part, were faithfully carried out. The usual course was pursued with reference to the vessel and cargo as with all vessels coming from infected ports. The vessels made their trips during the whole epidemic, with their accustomed regularity: indeed, from reasons about to be stated, extra vessels were placed upon the route. So far from New York being a loser, she was a gainer, in a commercial aspect, from the fever epidemic at Savannah. She was the only port on the Atlantic coast which permitted free commercial intercourse with the infected city." "The consequence of this embargo was that not only was an excess of cotton sent from Savannah to this port, as compared with previous years during the same period, but all the vessels trading from Charleston, Wilmington, and even Norfolk, were tasked to their utmost capacity. Sanitary measures and commerce need not, therefore, be antagonistic; and in this instance the former aided the latter. Though nearly one thousand deaths from yellow fever occurred in Savannah, no well-authenticated case reached the city of New York, except those of two gentlemen who came by rail." "Fewer cases of ship fever and smallpox have arrived than for many years previous; but this is chiefly attributable to the great falling off in immigration, and consequently the smaller percentage of persons liable to be infected."

Dr. James O. Pond, now over eighty years of age, was recently presented with a series of complimentary resolutions, elegantly engrossed and framed, on the occasion of his retiring from the responsible position of treasurer of the Academy of Medicine, an office which he held for twenty-seven consecutive years.

PERTINAX.

IN Europe the fixed salaries of medical professors range from $450 to $2000. Prof. Recklinghausen receives the highest: he gets, with the fees of the students, more than $8000. —*Lyon Médical*, October 15.

DR. ELY MCCLELLAN, U.S.A., calculates the cost of the late yellow-fever epidemic to the State of Georgia as 5,609,857 dollars. 5,609,857 dollars and 26.5 cents would, we think, be more accurate.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, DECEMBER 14, 1876.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

(Continued from page 238.)

Embolic pneumonia. By Dr. JOHN GUITÉRAS.

J. W., æt. 45, admitted to the hospital Nov. 27, 1876.

Both parents died of consumption about the age of 60. He has lost four sisters and two brothers from the same disease.

He has always been a healthy man, but very intemperate for the last three years.

Notes taken Dec. 1.—Ten or twelve days ago he contracted a heavy cold, which did not confine him to bed until the day of admission.

Since admission, the pulse has been frequent, considering the slight febrile movement, and acceleration of respiration. There has been more or less constant and distressing hiccough. To-day his body is covered with a profuse perspiration. He is drowsy, and there is some wandering delirium.

By physical exploration I detected an area, about one and a half inches square, at the margin of the chest and within the line of the left nipple, where marked blowing breathing and dulness were present. Loud sonorous breathing was heard over the rest of the chest.

On the 2d there is prune-juice expectoration, and a friction-sound is heard by pushing the stethoscope under the ribs. The bronchial breathing is rendered indistinct by moist crackling at the circumscribed spot of consolidation. Pulse 116. Heart-sounds normal.

On the 3d, expectoration continues. The fluid under the small area mentioned breaks up into larger bubbles. The consolidation is extending upwards. Subsequently this extension of the inflammation continued, the typhoid state became more marked, and the patient died of œdema of the other portions of the lung. At no time was the expectoration fetid.

Dec. 3, evening, P. 108, R. 40, temp. 100°. 4th, morning, P. 116, R. 25, temp. 101°; evening, P. 112, R. 44, temp. 101°. 5th, morning, P. 108, R. 44, temp. 99⅘°; evening, R. 48, temp. 98°.

Post-mortem examination.—The diaphragmatic and pericardial pleura were minutely injected, and the seat of recent adhesions, especially towards the left.

The right lung was decidedly œdematous. The inferior left lobe was solid (red hepatization) in the central portion, surrounded towards the pleura by a layer of healthy lung nearly one inch deep. This explains the absence of signs of consolidation in the back.

Near the inferior border of the upper lobe, anteriorly, an area about one and a half inches in diameter, of a black color, was seen under the pleura. A section of this lobe was made through this spot, revealing a wedge-shaped cavity, with the base at the pleura and the apex not far from the root of the lung. It contained the dark, grumous detritus of gangrene, though odorless. The walls of this cavity were regularly excavated, showing that they were formed by the connective-tissue partitions between the dead and living lobules. The blood-vessel entering the apex of this wedge was found occluded by a white, fibrinous embolus, which was not yet adherent to the arterial walls. The upper portion of this lobe presented the granular section of red hepatization; but the other portions of the lung surrounding the cavity presented a marbled appearance. The dark connective-tissue partitions were visible, separating lobules of more or less reddish and whitish hues: in my opinion they were lobules in the different stages of catarrhal inflammation and caseous degeneration.

The anterior leaflet of the mitral valve presented a patch of atheroma, evidently not interfering with its function. The right auricle was filled with a large ante-mortem clot. Some shreds from it extended into the ventricle, becoming entangled with the tendinous cords. The clot was quite adherent to the walls, firm, white, and somewhat laminated.

The other organs were healthy. No tuberculosis.

Remarks.—Two very interesting points present themselves for discussion,—viz., the origin of the clot, and the significance of this catarrhal inflamation. In regard to the first, I suggest that the primary trouble was a bronchitis and catarrhal pneumonia (it is to be remembered that the patient was peculiarly predisposed to such form of inflammation by a hereditary taint); that this pneumonia may be sufficient cause for the formation of the clot in the right heart; that from hence the embolus was washed into the pulmonary circulation, causing gangrene of parts already in danger of slow death from caseous degeneration. The other question refers to the importance of this specimen as an illustration of the inflammatory origin of phthisis. The inflammation had spread from lobule to lobule. The lobules nearer the larger bronchi seem to be further advanced in the process of caseous change. The patient had only been ill three weeks, and the degeneration is not complete,—yet sufficiently so to make it very probable that either acute or chronic consumption of the lungs would have taken place had not the end been hastened by the gangrene and the croupous pneumonia of other portions of the lung. The latter seems to have been due merely to extension of the inflammatory process. How often may this combination of the two forms of pneumonia exist in those cases of adults where we find phthisis following pneumonia,—a pneumonia that we believe to be solely croupous or lobar?

The hiccough is accounted for by the irritation of the terminal fibres of the phrenic, and also of its trunk as it passes between the pericardium and lung: indeed, here the evidences of inflammation were much more decided.

Dr. C. B. NANCREDE thought it not impossible that there might be some other starting-point for the thrombus. Thus, there are several cases now on record where a simple bruise of the thigh has resulted in a most extensive phlebitis, which has not even been suspected; and so it might have been in this case. He did not understand why the embolus need start in the lung, go thence to the heart and back to the lungs again, as the anatomical arrangement of the capillaries of other organs would be more likely to have arrested it. This case seemed interesting in connection with the pathology of pyæmia.

Dr. N. had been struck with the exceedingly mechanical views which seemed to impress most pathologists. He thought that much more might be accomplished if we followed the plan of John Hunter and studied first the physiology of an organ before we tried to understand its pathology. If, for instance, we examine the physiology of the lungs, we find that in them the blood is aerated and that here a large amount of carbonic acid is eliminated. What is the result of interference with this function? See what is found in one disease where there is not sufficient oxygen present to get rid of a comparatively innocuous substance. Whether there be deficient oxidation on the one hand, or too much sugar on the other, to permit its oxidation in the lungs, certain it is that in glycosuria curious conditions result, among which are furuncles and other suppurative affections, even spontaneous gangrene of an extremity having been observed. If we examine the functions of the liver, we find it gets rid of a large amount of carbon and hydrogen in the shape of the bile, that it is a sugar-forming organ, that it has to do in some degree with calorification, and, finally, that it converts the crude albuminose into albumen. The liver in like manner excretes a substance, cholesterine, which when retained in the blood for a prolonged period has been known to set up symptoms similar to those of uræmia.

It was hardly necessary, Dr. Nancrede said, to allude to the depurating function of the kidneys; but he would direct attention to those inflammations of serous membranes found in kidney diseases, and especially would recall the fact that the arthritic affections in pyæmia have their origin in the same kind of membrane that is so frequently spontaneously inflamed in Bright's disease.

The skin likewise has an important part in excretion, acting to a certain extent vicariously to the kidneys,—indeed, so actively in certain

cases of acute suppression of skin-function that the skin has been found covered with a white pellicle of urea. Now, may not all these facts concerning the functions of the various organs have something to do with pyæmia?

One of the most recent surgical authorities remarks that the views of Virchow and his school are not satisfactory to him, and he believes that pyæmia and septicæmia are the result of the same cause, in the one case (septicæmia) the patient dying too soon to have any secondary complications, while in the other the same cause favors the occurrence of emboli. Dr. N. said that he wished it clearly understood that by pyæmia he meant only that form of blood-poisoning accompanied by the so-called *metastatic* abscesses; for he considered *septicæmia* to be an entirely different affection.

In examining the class of patients who have this disease, it will be seen that they are those whose blood tends to form a weak clot. Any depressing cause,—too frequently present in such cases,—such as improper food, bad air, etc., and, above all, hemorrhage, will produce a state of hypinosis, so that the blood forms a soft, *friable* clot. The occurrence of pyæmia in such cases has been explained by the readiness with which absorption takes place when the vascular system is comparatively empty. This is undoubtedly true with regard to *septicæmia*, but not with regard to *pyæmia*.

When we consider the interference with function, and consequent retention of excrementitious matters, resulting from extensive infarction of the lungs, liver, kidneys, etc., it seemed to Dr. N. that there was no occasion to go outside of the economy for a septic blood-infection. We constantly have a typhoid condition, resulting in death, when any one organ, such as the kidney, is chronically incompetent to perform its functions: how much more likely is this to obtain when not one but *several* organs are involved, and that so suddenly as not to permit a vicarious action to restore the balance! indeed, in many cases the organs usually vicarious to each other are involved in the infarction.

If the view that he had enunciated some six months ago was correct, we can thus readily explain some of those otherwise almost inexplicable cases of pyæmia where there is no wound, or its occurrence some time after a wound has soundly healed. Thus, let a fall produce an injury of any of the more superficial veins, such as a rupture of the internal coat, and of course a thrombus will form. This clot in the vein sets up an inflammation in the surrounding tissues, the inflammatory products of which being absorbed, the clot extends into some larger vessel, portions are swept away in the blood-current, and we have pyæmia from the embolism of the various organs causing an *auto-infection*, if I may so term it, from non-elimination of excrementitious substances.

Dr. Nancrede thought it a great pity that the study of pathology usually ended wtih placing a section of the diseased organ under the microscope and merely trusting to the most obvious interpretation of the appearances observed. He thought that we should look at the physiology in connection with the microscopic appearances of a diseased organ.

Dr. GUITÉRAS said the embolus did not have to follow any devious track, but went directly from the right heart through the pulmonary artery. In all cases of croupous pneumonia it is well known that there is a tendency to clot in the heart, and directly from this a fragment may be shot off and lodged in the lungs. Outside of this question he did not believe that this (case) had anything to do with pyæmia. It is well known that emboli are divided by all writers on the subject into *two* classes, specific and mechanical. The specific carry some special poisons or irritant properties through the action of which the pyæmic abscess is produced. But this has been a simple mechanical embolus, such as we find in heart disease, producing congestion and rupture of the blood-vessels beyond it,—hemorrhagic infarction. In this case the infarction was followed by gangrene, which, though rare, is more common to the mechanical than to the specific emboli.

Dr. NANCREDE said he had misunderstood Dr. Guitéras as to the source of the embolus, and, therefore, of course the first part of his remarks did not apply to the present case. He likewise was anxious to know on what authority the division into mechanical and infectious was made,—what grounds there were for believing there was a different cause producing these differing effects; as, unless proved by absolute demonstration, he thought we had no right to assume a specific cause.

If we examine the clot in a case of this kind, and one in pyæmia, he thought an explanation could be found without calling in the aid of any specific infection. In the present case we have a firm, hard, perfectly healthy mass of fibrin, not containing many cells proportionally, while in the pyæmic one we have a soft, friable, largely corpuscular clot, loaded with broken-down detritus, and eminently fitted to set up inflammatory trouble.

Dr. GUITÉRAS said, further, that in the specific embolism the breaking-down of the lung assumes the spherical shape characteristic of abscess, and the mechanical is wedge-shaped, with the base towards the pleura. He referred Dr. Nancrede to Cohnheim's admirable exposition of the subject, found in vol. v. of Ziemsen's Cyclopædia of Practical Medicine. If further proof were needed, he called attention to the fact of this being but one infarctus, as contrasted with the plurality of metastatic abscesses.

(To be continued.)

REVIEWS AND BOOK NOTICES.

YELLOW FEVER AND MALARIAL DISEASES: Embracing a History of the Epidemics of Yellow Fever in Texas; New Views on its Diagnosis, Treatment, Propagation, and Control. By GREENSVILLE DOWELL, M.D., Professor of Surgery in Texas Medical College, etc., etc. Philadelphia, Medical Publication Office, 115 South Seventh Street, 1876.

This volume of 241 pages, written from personal experience, which, according to the author's statement, "is now equal if not superior to any one living in the United States, as I have treated over two thousand cases in hospitals and private practice," is intended, in part at least, to correct false impressions, current in our text-books, and compilations now in course of publication. Prof. Dowell claims that his observations prove—1. That there are no permanent or universal pathological lesions in yellow fever. 2. That the adjective yellow is not appropriate, because not more than one in six of the patients affected become yellow, and of those who die of black vomit not more than one in three turns yellow before or after death. 3. The yellowness of the skin, when it does occur, is not due to bile, but to the hæmatin of the blood exuded into the intercellular spaces. 4. That dengue is much like a mild case of yellow fever, but it never kills, treat it as you will; while yellow fever is very fatal, treat it as you may. 5. No one ever has a second attack of either dengue or yellow fever.

This work is evidently the production of an earnest and devoted physician, who has enjoyed unusual opportunities for investigation, and it is therefore eminently worthy of careful study. Its unquestionable value is, however, somewhat diminished by a want of completeness of observation, of moderation in statement, and of rigorous exactitude in deduction, —blemishes which we trust will be corrected in a future edition, when that is called for at the hands of its accomplished author.

J. G. R.

OPHTHALMIC AND OTIC MEMORANDA. By D. B. ST. JOHN ROOSA, M.D., Professor of Ophthalmology and Otology in the University of the City of New York, etc., and EDWARD T. ELY, M.D., Assistant to the Chair of Ophthalmology and Otology, etc. New York, William Wood & Co.

For the hard-worked student and general practitioner this little book may prove of value as a handy work of reference on the anatomy, therapeutics, and surgery of the eye and ear. We cannot conceive of its being of any service to the well-posted specialist. We do not think that anything of much practical use can be taught, in a manual of this size, on such subjects as refraction, accommodation, and the ophthalmoscope. For the compass of the book, too much attention has been paid to anatomy. It is neat in typography and general appearance, and small enough to be readily carried in the pocket.

NUTRITION IN HEALTH AND DISEASE: A CONTRIBUTION TO HYGIENE AND TO CLINICAL MEDICINE. By JAMES HENRY BENNET, M.D. Second Edition, octavo, pp. 248. Philadelphia, Lindsay & Blakiston, 1876.

Dr. Bennet's object in writing the present volume was, as he tells us in the preface to the first edition, here reprinted, to draw attention to the fact that the imperfect performance of the digestive and nutritive functions leads slowly but surely to ill health, to disease, and to death.

The opening chapters are devoted to a consideration of digestion and nutrition in health, food, the nutritive requirements of man considered with reference to social occupations, to temperature, and to climate. A chapter is then devoted to nutrition in animals and plants, after which the author considers defective nutrition, the relation of urinary deposits to digestion and nutrition, and the book winds up with practical deductions as to the food-requirements in health, individual peculiarities, food-requirements in ill health, and confirmed dyspepsia.

The style of Dr. Bennet's book is pleasant, not severely logical, a little inclined to be gossipy,—in fact, the sort of book which is "written in hours of relaxation." The ground which it covers has for the most part been pretty thoroughly gone over of late by writers like Pavy and Edward Smith, and we consequently find little that is new in the present volume.

The first edition of Dr. Bennet's book was published eighteen years ago, and was exhausted within a twelvemonth of its appearance. Various engagements have since prevented the publication of this second edition, which the author especially dedicates to the readers of his various works, "a benevolent, sympathetic auditory scattered over the world." To this auditory the volume may safely be left. The cold critical reader will probably find more recent and, perhaps we may say, less discursive and more scientific works rather better suited to his wants.

WALSH'S PHYSICIAN'S COMBINED CALL-BOOK AND TABLET. Second Edition. J. B. Lippincott & Co., Philadelphia.

A very good book of its kind, containing some novel features, prominently among which we commend the interleaving of the diary for note-taking, memorandum-making, etc. It is so arranged that the fiscal year may be commenced at any time, and accounts may be kept quarterly or in blocks or masses not agreeing with the calendar year. The secret of its popularity in the past is easily guessed.

GLEANINGS FROM EXCHANGES.

THE BLOODLESS OPERATION (*The British Medical Journal*, January 30, 1876).—That the use of Esmarch's bandage is not contra-indicated by the presence of profuse suppuration in severe injuries, appears to be proved by the following case.

M. B., aged 60, was admitted into the Queenstown Hospital, suffering from a compound and comminuted fracture of the tibia and fibula of the right leg. With a view to conservative surgery, an attempt was made to save the limb; but, after a fair trial of splints, including McIntyre's, extensive suppuration occurring, it was deemed necessary to amputate.

It may be mentioned that on the patient being admitted to the hospital the upper fragment of the tibia was found to protrude through the wound, and had to be sawn off. Owing to the man's restlessness, however, it was impossible to bring the fragments into perfect apposition and retain them; besides which, profuse suppuration and the attendant irritative fever threatened a fatal termination unless the offending cause was removed. The operation was performed under chloroform. The leg was removed by the circular method above the knee. Little blood was lost during the few minutes of the operation; and at the date of this report the stump has nearly healed, being treated antiseptically from the first. It is, however, to the careful application of Esmarch's bandage that the success of the case is chiefly owing; and, although there was extensive purulent infiltration at the time the elastic bandage and tubing were applied, there have been not only no ill effects in the stump since, but not even one bad constitutional symptom. This is due chiefly to the absence of hemorrhage, which in ordinary amputations is so common a cause of death, and which can be easily avoided by the employment of this most excellent bandage.

TEMPORARY INSANITY AFTER CHLOROFORM.—Mr. John Ewens sends the following communication to the *British Medical Journal*, January 6, 1877: The interesting report of a case of "profound intoxication following anæsthesia by ether" in the *Journal* of December 30 reminds me of, I believe, an unusual case, which occurred in my practice about eight years since, of temporary insanity following the inhalation of chloroform. A woman had undergone the operation of removal of a cancerous tumor under the full influence of chloroform. On recovering consciousness, she manifested an intense aversion to myself, who had operated, so that it was absolutely necessary for me to leave the application of sutures, bandage, etc., to the surgeons who had assisted me. Meanwhile she was constantly muttering to them her desire that they should "kill" me. This condition had entirely passed off by the time of my next visit on the following day, and she had no recollection of the circumstance. She had previously expressed her determination that no one but myself should perform the operation: so there was no dislike of me.

In the other case the operation is stated to have been tedious, and the quantity inhaled necessarily large. Doubtless, as with alcohol, the first effect of ether is as a stimulant, and then larger doses act as a depressant, thus giving it a similarity of action to chloroform; and thus the question may be raised, how far ether is superior to chloroform in protracted operations. But the point to which I wish to call attention is the intoxicating effect of chloroform in my case. It may be more common than I am aware of, but I have never read of a similar case. I think it an excellent plan to administer a good dose of brandy-and-water before the inhalation of chloroform, thus giving a stimulus to the heart's action, and guarding it against the depressing effect of the anæsthesia. In a case of an old woman aged 87, whose finger I removed about three years since, it acted remarkably well, appearing to assist the anæsthetic action of the chloroform.

FAILURE OF SALICYLIC ACID AND SALICIN IN RHEUMATISM.—The *Lancet*, November 11, contains a report by Dr. Tuckwell of two cases of rheumatic fever which were treated with full doses of salicylic acid. In both the immediate effect of the acid upon the rheumatic symptoms was remarkable; a rapid falling of the temperature and pulse-frequency, a speedy subsidence of pain and swelling of the joints, a cleansing of the foul tongue, and arrest of the sweating, being observed. But in both alike, together with the satisfactory abatement of these symptoms, there came on a set of other symptoms which may thus be summarized:—humming and buzzing in the ears with gradually increasing deafness; a peculiarly loud, deep, and sighing respiration; a strange restlessness gradually increasing to delirium, not unlike that of delirium tremens, with involuntary evacuation of urine and fæces in the worst of the two cases; a slow and laboring pulse; an olive-green color of the urine. All these symptoms declared themselves at the same time that a low temperature, a slow pulse, and an absence of all rheumatic appearances showed that the disease itself was in abeyance. No sooner was the medicine withheld than the strange symptoms ceased and the rheumatism returned. The medicine was administered at first in the dose of one scruple dissolved in three drachms of the solution of citrate of ammonium given every three hours. This was gradually reduced, on the appearance of toxic symptoms, to ten grains, thrice daily, but was not tolerated even in this dose.

In the same number of the *Lancet* a case occurring under care of Dr. Green is reported,

in which salicin was employed in acute rheumatism. The salicin was given early, and pushed as far as the patient could tolerate it. He frequently had headache, and twice complained of dizziness and noises in his ears. He vomited on three separate occasions. The salicin did not notably lower the temperature. It did not control the pain, opiates and chloral being required. It did not prevent the occurrence of endocarditis, pericarditis, or pleurisy. It is, however, worthy of note that the perspiration, which was acrid for a day or two, became afterwards slight and unirritating, so that no miliaria appeared.

WANDERING LIVER.—Prof. Chvostek (*Allg. Med. Zeit.*, November 23, 1876) has observed the following case. Only seven similar ones are on record. The patient was a woman 53 years of age, had been married eighteen years, and had given birth to twelve children, nine of whom were still living. After each delivery the lochial discharge continued for six or eight weeks, the abdominal walls were much relaxed, and the bowels very constipated. In 1869, cramps came on, and, after (in 1870) lasting for three months in an aggravated form, completely disappeared until, in 1874, they again returned. In February, 1875, medical advice was resorted to. Colicky pains were then complained of, which, proceeding from the neighborhood of the stomach, became particularly severe around the region of the navel. They lasted for an hour every day, were not alleviated by morphia, prussic acid, etc., and so completely deprived the patient of her sleep and appetite that in the latter part of the summer she was, in consequence of her weak state, obliged to keep to her bed. Her medical adviser administered narcotics and laxatives; and by this means, and through the removal of a large quantity of fecal accumulation, relief was at last obtained. At another time there was vomiting of a dark-colored fluid, which (in connection with the cachexia present, and the existence of slight jaundice and a hard abdominal tumor) led to the supposition that it was a case of carcinoma of the liver. The abdominal walls were everywhere relaxed, and covered with large meandering veins; whilst strong peristaltic movements of the bowels could be also observed, especially during the attacks of colic.

On examination of the tumor by Prof. Chvostek, a distinct notch could be felt beneath its lower border and above Poupart's ligament. On the other hand, percussion of the natural region of the liver gave a perfectly clear sound; and this clear sound, be it particularly observed, was not only evident in front, but behind also. The spleen was in its proper position, and of normal size; and there was no displacement of any of the other viscera. The tumor was freely movable; it settled down in the upright posture of the patient; but by elevating the pelvis it could (although not without giving much pain) be replaced in its normal situation, when the dulness or percussion natural to the region of the liver at once returned.

We know very little about the etiology of this affection. But the author of the paper thinks the view taken by Meissner a very plausible one,—namely, that as pendulous belly, pregnancy, etc., are of frequent occurrence, while this dislocation of the liver, on the contrary, very seldom happens, such dislocation may arise from a congenital laxity of the suspensory and coronary ligaments, which give way and so allow the liver to fall out of its natural position. The relaxed state of the abdominal walls, arising from repeated pregnancies, also contributes to, or aggravates, the evil; for five of the eight cases occurred in women who were all more than fifty years of age.

The *treatment* of this dislocation is obviously to replace the liver in its natural position and to endeavor to keep it there. Elastic bands or rollers are not suitable for the purpose, while a compress applied beneath the liver cannot be borne by the patient. Prof. Chvostek, therefore, thinks that we should in such cases contrive a bandage for the middle and lower part of the abdomen, by which the upper part of that region would not be too much constricted, and the consistence of which should be nearly equal to that of a truss.—*Medical Press and Circular.*

ON TREMBLING IN PARKINSON'S DISEASE (PARALYSIS AGITANS).—We extract the following from a translation of a recent lecture by Charcot in the *St. Louis Medical Record.*

M. Charcot began by showing that the term "*paralysis agitans*" is not appropriate. In fact, it is paradoxical to give the name of "paralysis" to an affection in which the muscular strength is preserved intact for long periods. Further, the word alarms the patient, leading him to imagine he is suffering from some grave organic lesion, while in reality no one has ever discovered any serious or constant alteration up to this time, although the most careful microscopical examinations have been made. The qualificative "agitans" added to the term paralysis is inexact as well, at least when applied to certain forms, in which, although they are well marked, trembling may be wanting. These considerations have led M. Charcot to propose calling this affection *Parkinson's disease*, after the name of the English physician who in 1817 first called attention to this affection.

To M. Charcot belongs the merit of having clearly separated paralysis agitans from another very interesting affection, *insular sclerosis*. According to M. Charcot, in Parkinson's disease the trembling most commonly begins in one of the limbs and becomes generalized gradually, "always, however, respecting the head." In drawing attention to two cases of paralysis agitans he compares the disease with insular sclerosis as follows: "You will

observe that in these patients the head does not participate in the trembling, or, if it appears to be shaken by the oscillations, that the latter are evidently communicated to it: there is a transmission of the shakings of which the body and limbs are the seat." M. Charcot compares this phenomenon of transmission to that of the equestrian who submits to the movements which are communicated to him from his steed. If the patient's limbs and body are kept fixed, the head does not tremble. Trembling, in fact, is not, according to M. Charcot, an inevitable accompaniment of Parkinson's disease. There is, indeed, a variety in which the trembling is so slight that it is not noticed by the patient, or it appears only after three or four years, or it may be wanting throughout the whole course of the affection.

M. Charcot continues his lecture by the citation of various cases, and concludes as follows:

First, the trembling of the head, which is sometimes seen in Parkinson's disease, is a transmitted trembling, differing thus from that which occurs in insular sclerosis.

Second, there exists a form of this disease in which trembling does not make its appearance, or, at least, does not manifest itself until late, after the disease has been fully established for years.

Salicylic Acid in Acute Rheumatism (*Brit. Med. Jour.*, December 30, 1876).—J. B. had been suffering from subacute rheumatism for a week, and was under alkaline treatment. He derived little benefit during this time, and the rheumatism somewhat suddenly assumed the acute form and seized upon all the large articulations. The affected joints were much swollen, very tender, and red; all voluntary movement was gone, and there was lancinating pain in the left groin and the back. There was nearly total suppression of urine, with anxious countenance, hurried breathing, a hacking cough, headache, and "pain at the heart." The pulse was intermittent and rapid. There was no murmur on auscultation, but the normal cardiac rhythm was replaced by five or six "hurried beats," followed by a distinct pause, and then repeated.

The patient was placed between blankets, the affected joints swathed in cotton-wool, a linseed-meal poultice applied over the heart, and the following prescription ordered: ℞—acidi salicylici gr. 80; liquoris ammoniæ citratis ℥ij; potassii iodidi gr. xv; infusi aurantii ad ℥viij. An ounce to be taken every two hours. The medicine was begun at 2 P.M., and at 6 P.M., after the administration of twenty grains of salicylic acid, the patient's friends noticed "a change." At 8 P.M. he was visited, and found perspiring profusely, quite rational, and feeling easier. The pulse was still irregular. The medicine was ordered to be given every hour during the night. Strong beef-tea, with a tablespoonful of brandy every two hours, had been given *ad libitum* from two o'clock, and was ordered to be continued in the night. Fifteen hours afterwards he was again visited, and found moving his arms and legs quite freely, declaring himself "painless," and the only visible trace of the rheumatism was a faint blush on the left inner ankle. He had been sleepless and wandered a good deal during the night, wanting to get out of bed when the pain left the joints. The pulse was still intermittent, but the heart's action was less tumultuous, and there was very little præcordial pain. He was ordered to be well rubbed with a dry, warm blanket, care being taken to avoid exposure. A purgative of calomel and jalap was administered, and the medicine ordered to be given every *four* hours. The brandy was stopped and beef-tea continued. Cold to the head could not be borne, as it produced a general chill and made the patient feel uncomfortable.

From this time—*i.e.*, twenty-one hours after the administration of the salicylic acid, during which time he had one hundred and seventy grains of the drug—there was no relapse of the rheumatism. The excitement, however, remained while the drug was continued; and, in spite of chloral and Battley's solution (ten grains of each every three hours), the sleeplessness persisted until its entire discontinuance twenty-four hours later. So delirious was he for two nights succeeding the disappearance of the rheumatism that he was kept with difficulty in bed, and even struggled with those near him. The second night after the discontinuance of the acid, the patient slept soundly without a draught. By this time the secretions were restored, and he was allowed to sit by the bedroom-fire and have a liberal diet.

New Method of Treating Urethral Strictures (*The Medical Record*, January 13, 1877).—At the meeting of the Académie de Médecine at Paris on November 7, 1876, M. C. Fort described a method of treating urethral strictures of small calibre, which he has employed for seven years with great success. He first passes a filiform bougie through the stricture and leaves it in position for twenty-four hours. The presence of the bougie excites a slight inflammation of the tissues that form the stricture, which softens them and renders them more extensible. The bougie is provided with a metallic cap, to which catheters of various sizes may be attached. At the end of twenty-four hours a conical catheter, three millimetres in diameter at the largest part, is attached to the bougie and pushed forward through the stricture, the guide keeping it in the proper direction. The catheter is then withdrawn until the metallic cap on the end of the bougie emerges from the meatus. The catheter is now detached from the bougie and replaced by another, which is five millimetres in diameter at its largest part. This is in turn made to traverse the stricture, then withdrawn, and replaced by a third catheter which

measures seven millimetres in its largest diameter. The bougie during the passage of the catheters coils up in the bladder, where it can do no harm.

By this method even very tight and indurated strictures may be completely dilated at a single sitting. The guide removes all danger of making a false passage. The pain is so slight that anæsthesia is unnecessary. The operation rarely causes any hemorrhage.

MISCELLANY.

SCURVY IN THE ENGLISH ARCTIC EXPEDITION.—It would appear that the cause of the outbreak of scurvy in the sledging-parties of the English Arctic Expedition was, as hinted in our London letter in No. 239, January 20, undoubtedly due to disregard of the positive instructions issued. The directions of Sir William Armstrong were detailed and explicit. He further gave them a work on scurvy. Sir George Nares took upon himself to make out the sledge dietaries without lime-juice. To the remonstrances of Dr. Colam he replied that if he included lime-juice he must omit more important matters. Commander Markham has testified that the few pint bottles taken were not carried as a specific against scurvy, but as a pleasant drink when the weather got warmer. Even now, Commander Markham does not consider lime-juice a specific for scurvy, and says that in future expeditions he would still go without it; but Nares and Stephenson think differently.

To *prevent clouding of mirrors* used in laryngoscopy, brush them over lightly with a little glycerin.

NOTES AND QUERIES.

WASHINGTON, D.C., February 20, 1877.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—Permit me to call your attention to the following correspondence, and to request that it may be published in your journal.

Very respectfully and truly yours,
J. S. BILLINGS,
Surgeon U.S. Army.

[COPY.]

CAMP STAMBAUGH, WY. TER.,
February 7, 1877.

SURGEON-GENERAL U.S. ARMY, WASHINGTON, D.C.:

SIR,—I have the honor to inclose herewith, for the information of the Surgeon-General U.S.A., a communication received by me on the 6th inst.

Very respectfully, your obedient servant,
(Signed) CHARLES H. DODGE,
Hospital Steward, U.S. Army.

[COPY.]

BUFFALO, N.Y., January, 1877.

SIR,—Do you want a medical diploma? Some hospital stewards have obtained diplomas through our agency, and are practising successfully. Many are well qualified, but lack diplomas. The agent, having been a hospital steward during the late war, knows whereof he writes. Fully one-fourth of the physicians in the United States have procured their diplomas through our influence.

Through the private agent of a medical college which cannot be questioned, you are proffered a diploma for the consideration of fifty ($50) dollars. *No security is given, but the diploma will positively be forwarded by registered mail.*

Send money by registered or ordinary letter *at the agent's risk.*

A limited number only will be disposed of. If you cannot invest, please hand this to one who may. An early reply is particularly requested.

Yours truly,
JOS. P. DONNER.

Address 580 LOUISIANA ST.,
BUFFALO, N.Y.

FORT RANDALL, DAKOTA,
February 15, 1877.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

In your issue of the 3d instant, under the head of "Translations," there is a brief paragraph to which I desire to call the special attention of the profession. It is upon the subject of "Injections of Hot Water in Uterine Hemorrhage."

During the past month, without remembering, if I ever knew, that Dr. Lidell, and perhaps others, had recommended hot water as a means of checking certain forms of hemorrhage, I used the remedy in the case of an incised wound, and was astonished at its rapid and complete success. I have used it twice within the past two weeks in similar wounds, and with equal success. It seems to me to possess all the advantages of the liquor ferri persulphatis, without any of the disadvantages of that drug.

It occurred to me at once that hot water might with advantage supersede all other remedies in uterine hemorrhage, and I resolved to give it a trial; but, before an opportunity offered, the translation referred to, page 203, attracted my notice. The delusion of the remedy being a new and untried one being now dispelled, but without in the least dispelling my faith in its efficacy, I desire to bespeak a fair trial of its merits by the profession generally.

S. S. TURNER,
A. A. Surgeon, U.S.A.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM FEBRUARY 11, 1877, *TO FEBRUARY* 24, 1877, *INCLUSIVE.*

BEDAL, S. S., ASSISTANT-SURGEON.—Dismissed the service. G. C. M. O. 18, A. G. O., February 10, 1877.

GARDNER, E. F., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Dakota, for assignment to duty. S. O. 41, A. G. O., February 23, 1877.

SHUFELDT, R. W., ASSISTANT-SURGEON.—To report to Commanding General, Department of the Platte, for assignment to duty. S. O. 41, c. s., A. G. O.

PERLEY, H. O., ASSISTANT-SURGEON.—To report to Commanding General, Department of Dakota, for assignment to duty. S. O. 41, c. s., A. G. O.

COOPER, GEO. E., ASSISTANT MEDICAL PURVEYOR.—Relieved from duty in Department of California, and to relieve Surgeon Robert Murray of the charge of the Medical Purveying Depot in San Francisco, Cal. S. O. 40, A. G. O., February 21, 1877.

JAQUETT, G. P., ASSISTANT-SURGEON.—Granted leave of absence for one month, on surgeon's certificate of disability. S. O. 34, Department of the South, February 15, 1877.

GARDNER, W. H., ASSISTANT-SURGEON.—Assigned to duty at Greenville, S.C. S. O. 36, Department of the South, February 17, 1877.

BUCHANAN, W. F., ASSISTANT-SURGEON.—Assigned to duty at Morganton, N.C. S. O. 38, Department of the South, February 20, 1877.

COMEGYS, E. T., ASSISTANT-SURGEON.—To rejoin his proper station at San Felipe, Texas. S. O. 26, Department of Texas, February 8, 1877.

BUELL, J. W., ASSISTANT-SURGEON.—Assigned to duty at Fort Concho, Texas. S. O. 23, Department of Texas, February 5, 1877.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, MARCH 17, 1877.

ORIGINAL LECTURES.

A CLINICAL LECTURE ON THE TREATMENT OF PRIMARY VENEREAL SORES IN PROFESSOR SIGMUND'S WARDS.

BY HEINRICH PASCHKIS, M.D.,

Allgemeines Krankenhaus, Vienna.

Reported by C. WINSLOW DULLES, M.D.

IN the treatment of primary venereal sores it does not make any practical difference whether the surgeon be a unicist or a dualist; for in many cases nothing less than an observation for a period varying from four to as many as seven or even eight weeks will suffice to determine absolutely whether he has to deal with a simple or soft chancre or a hard or Hunterian chancre. A suspicious sore upon the genitalia, appearing after an impure connection, should always be treated so as to give the patient the benefit of every possible doubt.

With this object most surgeons practise thorough cauterization; while there are not wanting a few who believe that a careful enucleation of the indurated chancre will protect the patient against subsequent syphilitic developments. The latter method is utterly rejected here, while the former is almost universal, and that which is taught and practised in these wards.

The desiderata in a cauterant are that it shall destroy all animal and vegetable organisms with which it comes in contact, that it shall make a good eschar, and that its action may be limited as desired.

These are not attained by the nitrate of silver, which is sometimes injudiciously used. Its action is by far too superficial, and it leaves such discoloration as renders it almost impossible afterwards to learn anything by inspection of the parts.

On the other hand, the best and simplest cauterant we have is the one least used. I mean the actual cautery, the hot iron. Its action is thorough, it can be limited with great ease, and it leaves the best eschar possible. Unfortunately, its use is objected to by patients, who dread the pain, although actually this is less than that caused by the chemical cauterants. The hot iron, when practicable, is a simple method, requiring no apparatus: one may employ a knitting-needle, heated in any flame, and it may prove of great service in cauterizing fistulous tracks and sinuses, such as so often are seen about suppurating buboes and the like.

Next in strength after this cauterant come the stronger mineral acids, nitric and sulphuric. Before their use the sore should be made as dry and clean as possible, and they should then be applied with a glass rod or a pointed piece of wood. Sulphuric acid is not infrequently made into a paste with charcoal, and thus applied.

These acids are excellent cauterants, but there is some difficulty in accurately limiting their action.

The styptic salts of iron, especially the perchloride, are sometimes used, particularly in cases where there is a strong tendency to hemorrhage.

The chloride of zinc is often used in the strength of one part to eight parts of water, being a thorough caustic, but a frightfully painful one.

In these wards the solution of the sulphate of copper is employed more than any other cauterant, as we think it the best for the majority of cases. Its merits are that it does not injure the surrounding healthy tissue, its action can be accurately limited, and it does not leave a dirty eschar, nor disguise what goes on after its application, nor stain the linen as some other caustics do. We use it in solution of one part sulphate of copper and three parts water. This is applied with a piece of cotton tied to a stick or a camel's-hair pencil, after thoroughly drying the part, and repeated from three to six times a day, until the sore is converted into a healthy granulating one. For the pain, which is often intense, we employ cold applications.

For walking patients I have had made gelatine plates impregnated with the latter two salts, from which pieces may be cut and applied with plaster. The gelatine dissolves, and the salts are brought into contact with the sore.

For sores that have assumed a gangrenous or unhealthy appearance, various preparations have been recommended as antiseptics, among which carbolic acid is the best. The sores should be cleansed

with a solution of one part in a hundred parts water, and as a cauterant it should be used in a strength of ten to one hundred of alcohol, or equal parts of carbolic acid and glycerin, or even pure carbolic acid. It should never be used suspended in oil, because this diminishes its action and makes a dirty application, and uncleanliness must always be avoided, for it is one of the most serious obstacles to correct diagnosis and successful treatment.

As an application after cauterization I can most highly recommend a mixture of one part tar with nine parts gypsum, rubbed together until a slightly cohesive powder is secured, conveying, when rubbed between the fingers, a feeling which simulates greasiness. For primary sores, as well as suppurating glands, it acts as an absorbent and deodorizer of the discharges.

Cauterants are only employed until the sores become clean and present a healthy granulating appearance. When this is attained we use applications of indifferent salts. The chlorate of potash, or any antiseptic in weak solution, say one per cent., will serve to keep the wounds clean, and does not irritate. In certain cases we deem it advisable to stimulate the granulations to quicker cicatrization by application of solution of corrosive sublimate one part in a hundred parts of alcohol; or one of iodide of potassium ten parts, iodine one part, and water a thousand parts. In most cases we do not find this necessary.

When the sores are clean and doing well, we cover them with plaster or cotton and plaster, after the method of Guérin, for twenty-four hours, with which occasional light cauterization of the margins with a crayon of nitrate of silver is often combined advantageously.

ORIGINAL COMMUNICATIONS.

BLEPHARITIS AND AMETROPIA.

BY P. D. KEYSER, M.D.,

Surgeon to the Wills Eye Hospital, Philadelphia.

IN the discussion at the International Ophthalmological Congress last September, on the paper of Dr. Roosa, entitled, "On the Relations of Blepharitis Ciliaris to Ametropia," I remarked that I had for more than two years noticed this connection, and have been in the habit of examining every case of blepharitis that comes to my office for errors of refraction, and have never failed to discover some one or the other, if not a combination of anomalies.

To substantiate the correctness of Dr. Roosa's remarks as well as my own, I present the following statistics of cases observed in my private practice the past year (1876).

February 7.—Mr. F., æt. 19. Has had blepharitis the past two years. Lids always worse on use of the eyes.

V = $\frac{20}{XX}$; after atropine, $\frac{20}{XXX}$; with +48 = $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{48}$.

February 25.—Mr. C., æt. 28, complains that for years he has had trouble with the edges of his lids.

L. E., convergent strabismus 1‴;

L. E., V = $\frac{2}{C}$;

R. E., V = $\frac{20}{XL}$; after atropine, $\frac{20}{LXX}$;

R. E., with +9, V = $\frac{20}{XX}$.

L. E., with +9, V = $\frac{10}{C}$.

Since use of glasses, no return of blepharitis.

February 27.—Miss H., æt. 15; blepharitis the past year.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +36, $\frac{20}{XX}$.

Hypermetropia = $\frac{1}{36}$.

February 29.—Mr. M., æt. 24; blepharitis for the past two or three years.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XL}$; with +36, $\frac{20}{XX}$.

Hypermetropia = $\frac{1}{36}$.

March 3.—Master J., æt. 16; the past year has been applying his eyes to close and fine work in a machine-shop, and has noticed an inflammation and eruption on the edges of the lids.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +36, $\frac{20}{XX}$.

Refraction, hypermetropia, $\frac{1}{36}$.

March 7.—Master McC., æt. 10; edges of the lids inflamed the past six months; always worse on attempting to study.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +42, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{42}$.

March 17.—Miss G., æt. 20; edges of the lids inflamed for some time. Cannot read nor sew with comfort; pain in the eyes and over brow, and in the back of the head.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XL}$.

R. E., $+40 \supset +60^{c}$, 90°, V = $\frac{20}{XX}$.

L. E., $+48 \supset +60^{c}$, 90°, V = $\frac{20}{XX}$.

Refraction, compound hypermetropic astigmatism.

March 22.—Master G., æt. 14; blepharitis for three or four years; reads much; lids always worse.

V = $\frac{20}{XX}$; after atropine, $\frac{20}{XXX}$; with +48, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{48}$.

March 29.—Mr. D., æt. 28. For the past five years edges of the lids have been inflamed; kept pulling the ciliæ out, but no relief.

V = $\frac{20}{XXX}$; after atropine, $\frac{20}{LXX}$; with +20, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{20}$.

April 8.—Miss G., æt. 24; blepharitis.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +48, $\frac{20}{XX}$.

Insufficiency of L. rectus internus, 4°.

May 22.—Mr. C., æt. 23; blepharitis.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XL}$; with +30, $\frac{20}{XX}$.

Refraction, hypermetropia, $\frac{1}{30}$.

June 5.—Mr. McL., æt. 26; blepharitis R. E. the past two years; nothing would cure it.

R. E., V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +48, $\frac{20}{XX}$.

L. E., V = $\frac{20}{XX}$; after atropia, $\frac{20}{XX}$; emmetropic.

The R. E. recovered soon after the use of the glass, and has remained well ever since.

June 19.—Mrs. H., æt. 25; has had blepharitis since nine or ten years of age; has tried everything without a successful and permanent cure.

V = $\frac{20}{XXX}$; after atropia, $\frac{20}{LXX}$; with +30, $\frac{20}{XX}$.

In one week after wearing the glasses and treatment, the lids were almost well, since which time she has had no return of the old inflammation.

July 7.—Mr. B., æt. 26; lids have been inflamed for some time.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +42, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{42}$.

August 12.—Mr. W., æt. 28; for three or four years his eyes have troubled him; is a bank clerk, and every day about noon there comes a pain in the head, which remains until finished with his duties; edges of the lids are much inflamed.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{C}$; with +16, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{16}$.

Since using the glasses, lids have recovered their natural look, and there is no return of the daily pain in the head.

October 17.—Master L., æt. 14; blepharitis the past six months.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +42, $\frac{20}{XX}$.

Refraction, hypermetropia, $\frac{1}{42}$.

October 19.—Mr. A., æt. 31; for several years eyelids have been red and scaly.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XX}$; dim, $+48^{c}$, 90°, $\frac{20}{XX}$ sharp.

Simple hypermetropic astigmatism, $+48^{c}$, axis 90°.

October 30.—Master A., æt. 15; blepharitis five years' duration.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +48, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{48}$.

November 7.—Mr. S., æt. 30; blepharitis one and a half years.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XXX}$; with +48, $\frac{20}{XX}$.

November 10.—Miss P., æt. 20; for a year past, blepharitis.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XL}$; with +30, $\frac{20}{XX}$.

November 15.—Miss W., æt. 19; blepharitis for over two years.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XL}$; with +36, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{36}$.

December 6.—Mr. J., æt. 27, has had inflammation of the edges of the eyelids for six years; has undergone much treatment without any benefit.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{LXX}$; with +24, $\frac{20}{XX}$.

Since the use of the glasses, eyes have improved steadily, and are now almost well.

December 8.—Mr. H., æt. 21; blepharitis the past year. The lids are better when not using his eyes.

V = $\frac{20}{XX}$; after atropia, $\frac{20}{XL}$; with +30, $\frac{20}{XX}$.

Hypermetropia, $\frac{1}{30}$.

The accommodation was paralyzed in all the cases before the examination was made, so that a complete result could be obtained.

It will be noticed that all the cases were hypermetropic, and in a very great majority of them of a low degree; only two being astigmatic.

I have never seen a case of marked blepharitis get entirely and permanently well under the ordinary treatment until the defect in refraction has been corrected, although the remedies used would improve and apparently cure the disease, but in a short time a relapse would occur, and the shorter would be the time for the relapse, if the eyes were used steadily and much at fine or close work.

Exact observation of such cases is what is needed now, and accumulations of experience may show the fact of ametropia being in many if not all cases the direct cause of blepharitis.

In the case of date June 5, above described, the hypermetropia was the cause of the blepharitis without doubt, as the lids of the one eye only were affected, and this was the hypermetropic one, while the other was normal and no defect of refraction could be found.

In my clinic during the same time there were twenty-four cases of blepharitis, all of which could not be examined under the action of atropia, but by the ophthalmoscope were determined, five hypermetropes of $\frac{1}{48}$, five of $\frac{1}{36}$, one of $\frac{1}{42}$, three of $\frac{1}{30}$, one of $\frac{1}{24}$, one of $\frac{1}{20}$, one of $\frac{1}{16}$, and one presbyope of $\frac{1}{36}$, four not determined, of which one was only two years old, two of three years, and one four years of age.

The question would naturally arise, "How can ametropia be a cause of blepharitis?"

That ametropia of any kind or form causes in all acts of vision a strain more or less upon the eye, which creates a fulness or hyperæmic condition of the neighboring parts, is a well-known fact, as is seen in many such cases by red and congested conjunctiva and edges of the lids. In cases where the strain is such as to create a continued hyperæmia of the edges of the lids, the extremely fine ducts and external openings of the small sebaceous glands (Zeiss's glands) that are to be found in the canals and follicles of the ciliæ become closed by pressure from the swelling of the tissue and vessels surrounding them, and having no outlet for the natural secretions, which are now increased by the hyperæmic condition, a choked status is formed, and inflammation and suppuration take place, as is noticed in the little pus bead that is found encircling the cilia and extending down the canal to the gland.

Rest of the eyes, with proper local treatment, removes in time this suppurative and inflammatory action and apparently the whole disease is cured; but on resuming active use of the eyes the same condition of hyperæmia returns, with eventually the whole former trouble.

But when the ametropia is corrected, and the strain on the eye removed, there will be no return of the condition of hyperæmia, and a perfect cure of the blepharitis can be made.

Since the meeting of the congress I have looked over the following recent works on ophthalmology: Stellwag, Wecker, Galezowski, Schweigger, Wells, Graefe und Saemisch, Tetzer-Gruenfeld, Von Graefe's Archiv, Zehender's Monatsblätter, Ophthalmic Hospital Reports, Annales d'Oculistique, Journal d'Ophthalmologie, Archives for Ophthalmology and Otology, Donders on Accommodation and Refraction, and Nagel's Jahresbericht, without finding any mention of this connection of ametropia and blepharitis. So that Dr. Roosa is the first to publish the fact and call attention thereto, although, without any communication with him, I have known and acted upon it in my practice for more than two years, and brought it to the notice of some of my colleagues.

1630 Arch Street, January 22, 1877.

THE CONDUCTING POWER AS DISTINCT FROM THE RECEIVING POWER OF THE NERVE.

BY B. F. LAUTENBACH, M.D.

ON reading the various works relating to the physiology of the nerves, we find, with one exception, that the authors always speak of the conduction of an irritation without alluding to the circumstance that *the nerve must receive before it can conduct an irritation*, and that this receiving of an irritation must of necessity occupy time, even though this be very short.

I say with one exception, as in the book of Schiff (Muskel- u. Nervenphysiologie, 1859)—a book which, as has been truly said by Professor Nothnagel, is an inexhaustible mine of facts relating to the physiology of the nervous system—this difference is spoken of. This author says (p. 140), "Die Erregbarkeit des Nervens, d. h., seine Fähigkeit eine äussere Einwirkung in Nerventhätigkeit zu übersetzen, und die Leitungsfähigkeit durch die er jene

Thätigkeit in der Richtung seiner Längsaxe überträgt und anderen Geweben mittheilt, sind zwei verschiedene Eigenschaften."

Later the same author (Zeitsch. f. ration. Med., 1868) found when he compressed a portion of the sciatic nerve of a frog, so as to destroy the medullary substance, and allowed the degeneration in the lower portion of the nerve to begin, that the nerve is still able to conduct impulses of the "will," and that the muscle contracted normally on irritating the nerve above the compressed portion, although irritation of the nerve below the compressed portion had little or no effect.

From these experiments Schiff again concluded that a difference existed between the receiving and the conducting power of the nerves. This conclusion has been called in question by Wundt (Lehrb. d. Physiologie, p. 495), who thinks that the results obtained by Schiff may be due to "a greater resistance offered to the conduction of the currents in the degenerating portion of the nerve."* But this is simply absurd, as the higher irritation has to encounter the same resistance in passing through the degenerating portion of a nerve as the conduction of an irritation directly applied to this degenerated portion encounters.

This experiment the author has repeated a number of times, and always found a confirmation of the results obtained by Schiff.

The following are a few of a number of experiments made by the author in another manner,—and before knowing of the previous experiments of Schiff,—which convinced him that the difference between the receiving and the conducting power of the nerve really exists.

Experiment 1. On a large female Rana esculentia.—After the left sciatic nerve at the lower portion of the thigh had reacted to comparatively weak irritation for fifteen minutes, the strongest induction currents (two large Bunsen cells) were no longer able to cause it to react. The muscle was now taken, and it was found to respond to slight irritations, as is usually the case under these circumstances. Being surprised that irritation of the nerve ceased to produce contraction of the muscle at so early a period of the experiment, I wished to see if reflex contractions were still present in the opposite limb; but, to my astonishment, irritation of the skin of the uninjured extremity *not only produced reflex contractions in the muscles of the same side, but also in the muscles of the opposite side; i.e.*, a nerve that was no longer able to respond to direct irritation was still able to conduct an irritation received through the medium of the spinal centres (the brain and upper portion of the spinal cord had been destroyed) from the opposite extremity. The sciatic nerve was now completely separated from the other tissues of the thigh, which were removed and the irritation of the nerve repeated without producing the slightest movement in the gastrocnemius; the irritation of the skin of the opposite extremity was now again made, and the left gastrocnemius contracted so as to draw the lever of the myographion to the height of 8 mm.

Experiment 2. Male R. esculentia.—The right sciatic nerve was irritated at a point just above the knee by means of a very strong induction current without causing the slightest contraction in the gastrocnemius, but irritation of the skin of the opposite extremity, as also of the skin of the same extremity, caused it to contract strongly. Thinking that this result might be due to an anomaly in the distribution of the nerves, I removed the whole right thigh, leaving the gastrocnemius connected with the rest of the muscle only by means of its nerve. The nerve was again irritated, with the previous effect, *i.e.*, with absolutely no effect; while irritation of the skin of the opposite extremity produced contractions of the gastrocnemius of the injured extremity.

Experiment 3. Large female R. temporani.—The right sciatic nerve never reacted. Irritation of the skin of either limb causes reflex contractions in the gastrocnemius of the injured limb.

These experiments show very plainly that the conducting power of a nerve may be present when the receiving power is absent, for otherwise it would be impossible to explain why a nerve can conduct an impression received from the centre and not a much stronger one applied to it near its periphery.

An interesting experiment, which shows that the same difference exists in the nerve in the muscle, is the following:

Experiment 4. Rana esculentia.—Two poles from an induction apparatus were brought into the muscle (one through the tendon of the gastrocnemius, and the other near its origin) and two poles were applied to the plexus on the same side. The irritation of either muscle or nerve could be made with the same current by means of a Pohl communicator. After the seventeenth irritation, the muscle ceased to respond to the strongest currents directly applied to it, but when a very weak current was applied to the plexus, the muscle contracted, drawing the lever of the myographion to the height of 5 9 mm.

* "Zunahme des galvanischen Leitungsfähigkeit in dem degenerirenden Nervenstück," says Wundt.

The fact that this difference between the receiving and the conducting power of the nerve really exists, will explain the anomalous cases of curare and conia poisoning, where voluntary and reflex movements continued though the direct irritation of the nerves caused no contraction of the muscles. Its great importance, however, will be seen when the author has presented his experiments on the "*velocity of conduction in the nerves*," which he will probably be able to do in a short time.

PHYSIOLOGICAL LABORATORY OF GENEVA,
January 24, 1877.

COMPOUND DISLOCATION OF THE KNEE, TREATED BY POWERFUL EXTENSION AND COUNTER-EXTENSION, RESULTING IN A PERFECT CURE.

BY J. D. DAVIS, M.D.

SAMUEL G., aged 19 years, robust, of very temperate habits, received on the evening of the 21st of September, 1875, a compound dislocation of the right knee by a force acting upon the anterior and inferior part of the thigh, and a counter-force acting on the posterior and superior portion of the leg.

I saw him four hours after the occurrence, and upon examination found the lower extremity of the femur driven backward to such an extent that the entire condyles protruded beyond the soft parts at the lower border of the popliteal space. The patella and the head of the tibia were thrown up beyond their natural level, resting on the anterior surface behind the head of the tibia, into the hollow of the femur. The patella had sunk down in front of the joint. The head of the tibia could be easily traced with the finger. The tendons of the extensor muscles were much relaxed, and the limb was considerably shortened. But slight hemorrhage had occurred. The popliteal muscle was of course ruptured, and a portion of it protruded from the opening, which I removed with the scissors. But, strange to say, the popliteal artery was not ruptured, but was found in the intercondyloid notch, completely divested of all surrounding tissue and stretched to its utmost capacity, rendering circulation through it almost if not entirely impossible. I advised amputation, but it was strongly objected to by the family. The patient was then anæsthetized, and, after directing an assistant to make firm counter-extension by taking hold of the thigh, while another, by grasping the foot, produced firm and steady extension, I placed the palm of my left hand beneath the condyles, while with my right hand I forced the leg backward, when the reduction was readily effected, owing, doubtless, to the extensive rupture of the ligaments surrounding the joint. The laceration was then found by measurement to be three inches in its longest diameter. Very little hemorrhage followed the reduction. The wound was sponged off, and simple cold-water dressings applied.

As a precautionary measure, the limb was placed in an ordinary lateral splint, the patient put upon a solid mattress, and one-fourth grain of morphia administered hypodermically. We enjoined perfect quiet on the part of the attendants, and left the young man resting comparatively easy.

Early on the following morning (22d) I found him resting very well; not much pain, although the joint was very much swollen and inflamed. Pulse 104. The wound was carefully cleansed with a Davidson's syringe, great care being taken not to disturb the joint in the least. There was some escape of synovial fluid. The limb was now placed in a splint, by means of which powerful extension and counter-extension could be produced, if so desired. This was done with the intention of forcing the contiguous extremities of the tibia and femur as far apart as practicable. The splint was so arranged that the wound could be cleansed perfectly without in the least disturbing the joint or changing the limb from its extended position. The joint was kept constantly wet with cold water medicated with carbolic acid. A mild laxative was administered. One-eighth grain of tartrate of antimony and potassium in solution was ordered to be given every two hours.

On the 23d, the pulse 102 per minute, hard, and bounding to the touch. Inflammation and swelling somewhat increased; joint very red and hot; not much pain; and, I might add, the patient was comparatively free from pain during the entire recovery. The patient had rested very well through the night, by the aid of one-third grain of morphia. Cleansed the wound as on the previous day. No appearance of synovial fluid. Increased the cold applications, and ordered tincture of aconite root, in doses of five drops every four hours, in addition to the tartar emetic.

On the 24th the pulse was 86 per minute, rather soft, and compressible. A decidedly decreased amount of heat in the joint. Color more natural, but the swelling remains about the same as on the previous day. Patient very cheerful; appetite not much impaired, and bowels in good condition. Dispensed with the aconite. For the following three days the symptoms did not vary.

28th. Pulse 72 per minute. Inflammation gradually diminishing. The wound discharging freely, and presenting healthy granulations. The wound was cleansed every day with the syringe, using as a wash warm water and sweet milk, equal parts, which made a very soothing lavatory. On the 10th of October some exuberant granulations were noticed, which disappeared after a few dressings of dry lint. On the 22d of October, one month from

the occurrence of the accident, passive motion was commenced. The joint, previous to this time, had never been moved in the slightest degree, being kept constantly in the extension splint, with just as much extension and counter-extension produced as the patient could bear. Seemingly, no increase in the inflammation was produced by the passive motion. The splint was now dispensed with, and a supporting bandage substituted, the wound being almost healed. Three days afterwards (25th) motion was again produced, and the limb was flexed at almost a right angle, with very little pain to the patient. No adhesions to signify seemed to have formed. On the 29th of October the patient was able to bear half his weight on the affected limb, and to flex the leg on the thigh at a right angle without any apparent difficulty. All this motion did not produce any noticeable increase in the inflammation. Although the patient was disposed to walk about the room merely with the assistance of a cane, I had him procure a pair of crutches and use them for a few weeks, and also retain the supporting bandage for over a month afterwards. I deferred making this report until I could learn what result the summer work on the farm would have upon the injured limb. And at this date he informs me that he has never, since the throwing aside of the crutches, experienced the slightest inconvenience from that knee. The motion in it is perfect, and he thinks the strength is fully equal to that of the uninjured knee. This favorable result and speedy recovery, I think, are due in the main to the absolute quiet maintained by the extension splint.

WEXFORD, PA.

TOBACCO-POISONING, WITH RECOVERY.

BY W. W. VAN VALZAH, M.D.,

Resident Physician, Philadelphia Hospital.

ABOUT 6 P.M., December 23, 1876, I was called to a person lying on the floor, breathing very slowly and stertorously. His pulse was weak, rapid, and fluttering. His pupils were decidedly contracted, and but slightly sensitive to light. There was also complete loss of power of the upper and lower extremities, and no signs of consciousness could be elicited.

Mustard was given, and flagellations of the breast, face, hands, and feet were instituted. Twenty minutes later we gave 15 grains of the sulphate of zinc; this failing to produce an emesis, in twenty minutes 15 grains more were given, and with the desired effect. In the vomited matter, more than two tablespoonfuls of masticated tobacco were found. The diagnosis of tobacco-poisoning was then made.

After thorough emesis, ʒiij of a strong infusion of coffee, 2 grs. pulv. capsicum, and ʒj whisky, were given every half-hour. Under this treatment, which was kept up for six hours, the toxic symptoms gradually subsided.

After recovery the patient stated that he had taken the tobacco to relieve constipation; that nausea, general numbness, profuse sweating, and great muscular relaxation had been produced. He appears to have suddenly fainted and fallen upon the floor while going to bed.

TRANSLATIONS.

SUB-CONTINUED TYPHOID FEVER (*Archives Générales de Médecine*, January, 1877, p. 120).—At the Medical Congress of Turin, Baccelli read a communication on the association of malarial and typhoid symptoms. He admitted that there is either a union of the two fevers or a veritable sub-continued fever due to malaria with the appearances of typhoid: it is to this special morbid type that he gives the name of sub-continued typhoid fever. He rejects the appellation of typho-malarial, proposed in the International Congress at Philadelphia, concluding that we have not, neither can have, in practice, a true proportion established between two acute and grave affections. He defines the sub-continued fever as a fever caused by malarial infection, pernicious in type; and, according to him, every sub-continued fever has a special form which characterizes it. The chief danger in diagnosis consists in the possibility of mistaking it for a true typhoid, from which it is distinguished by a very notable difference. The sub-continued fever has been at the outset a legitimate intermittent, or immediately a sub-continued fever; it soon gives a high temperature (104° F.), and has some other symptoms, less precise and essential, which distinguish it. The accessions of temperature are frequent during the twenty-four hours, so that the writer insists on repeated thermometric examinations during the day, and lays great stress on the difference between having a continued fever and having the fever continually. In conclusion, he says that the disease has not a necessary course, and that prompt, continuous, and abundant administration of the preparations of quinine is efficacious as a mode of treatment. J. B. R.

EMBOLISM OF THE AORTA PRODUCING GANGRENE OF THE LEGS (*Vierteljahrschrift für die praktische Heilkunde*, 1877, i. 35).—Lauenstein had a case, in the Hamburg Hospital, of a woman aged 25 years, who had previously suffered from repeated rheumatic attacks, and who was admitted for acute rheumatism and pericarditis. After the subsidence of these symptoms she was seized with fever, chills, and severe neuralgia of the lower extremities; finally there was cessation of pulsation in both femoral arteries, the vessel in the right limb feeling like a painful rigid cord. The next symptoms were anæsthesia of both legs, loss of warmth, cyanosis, and gangrene. Eleven days after the complete cessation of circulation the patient died with pyæmic symptoms. During the whole course of the disease there existed a changeable blowing murmur at the base of the heart.

By the post-mortem examination there was discovered, at the beginning of the aorta, an aneurism as large as an apple, and in the spleen and kidneys emboli evidently proceeding therefrom. The most important condition, however, was an embolus plugging the aorta just above its bifurcation into the iliacs, which were completely occluded.

The interest of the case centres in the occurrence of aneurism with such severe sequelæ in a comparatively young patient, as well as in the correspondence between the symptoms and the changes found at the autopsy. J. B. R.

DISTURBANCE OF VISION FROM VARIATIONS IN TEMPERATURE (*L'Imparziale*, anno xvi., Florence, November 3, 1876, p. 663).—A glass-blower, aged 26, worked, while exposed to very high temperatures and to the intense light of his furnaces, for eighteen months, when he was attacked with heaviness without loss of consciousness, and paresis of the right leg. A month later there was superadded amblyopia, especially of the left eye, which increased until he had to give up work. There was difficulty in reading because in five minutes the letters became blurred: moreover, the failure of vision was more marked when the patient was subjected to a hot atmosphere. Sensibility was unimpaired, but paresis of both legs and great weakness existed.

While bathing in summer in a river, he discovered that vision was completely restored, and he accordingly continued to take cold baths with momentary improvement of sight. M. Raynaud assured himself many times of this fact, and noted that by cold immersions the patient was able to regain perception of color. Ophthalmoscopic examinations were made before, during, and after the baths, and showed a slight degree of atrophy of the disc in the left eye, and a diminution of intra-ocular circulation under the influence of bathing which appeared as an anæmia when compared with the state that occurred afterwards. The patient subsequently was attacked by scarlatina and varioloid. Cure finally followed, after many remedies had been employed, and the man left the hospital thinking himself fit to go to his usual occupations. The remedial agents used were cold baths, ergotine, iodide of potassium, galvanism, seton in the neck, and sulphur baths; the last appeared to be most beneficial. The author thought the paresis of the extremities depended on insular sclerosis of the cord, despite the absence of other definite symptoms, and felt inclined to accept the hypothesis of an antagonism between the capillary circulation of the periphery and certain local circulations in explaining the action of cold on the visual power. J. B. R.

DISLOCATION OF THE XIPHOID APPENDIX (*Gaz. Hebdom. de Méd. et de Chir.*, January 26, 1877).—M. Polaillon reported to the Surgical Society of Paris a case of luxation of the xiphoid appendix occurring during pregnancy. The woman, who kept herself tightly laced to conceal her condition, while in the seventh month felt a sharp pain in the hollow of the epigastrium. She had to remove her corsets, and then perceived the existence of a little tumor in the epigastric region. During parturition the pain increased and rendered the labor so severe that instrumental delivery was resorted to by the obstetrician.

There existed at the end of the sternum a transverse elevation limited by a hard edge, and the projecting body was movable from before backwards. It was determined to be a complete luxation backwards of the xiphoid appendix. M. Polaillon tried to reduce the luxation, but met with no success: the displacement persisted, and the appendix became fixed in its abnormal position. Finally pain disappeared. This case, taken in connection with two instances of traumatic luxation of the ap-

pendix cited by Malgaigne, makes the third example of this unusual injury. J. B. R.

Post-Mortem Changes in Whooping-Cough.—At a recent meeting of the Académie de Médecine (*Le Progrès Méd.*, 1877, p. 29) M. Guéneau de Mussy showed various specimens from children who had died during attacks of pertussis. Ganglionary engorgements of the mediastinum were observed, which pressed upon the recurrent nerves. M. De M. also remarked that in persons who had suffered from cough during life he had found the recurrent nerves pressed upon to a greater or less extent. He therefore had come to the conclusion that nervous excitation by compression was the cause of the cough. This theory gained support from the notion long entertained that whooping-cough is an internal eruptive fever. Local lesion of the pulmonary mucous membrane, engorgement of the peribronchial ganglia, compression of the recurrent nerves, attacks of cough,—such was the chain of events. Complete destruction of the motor nerves of the muscles of the glottis would explain those peculiar cases where aphonia occurs subsequent to whooping-cough, as well as the tedious duration of certain cases of pertussis which drag on for months and years.

In the discussion which followed M. De Mussy's remarks, M. Hardy objected—1, that many children die of whooping-cough in whom post-mortem examination reveals nothing; 2, that certain cases are rapidly cured by change of air; 3, that the cough of pertussis is intermittent, while the pressure of the ganglia should be continuous. M. De Mussy replied—1, that ganglionic alterations are not found because not sought for; 2, that intermittence is one of the characteristics of neuralgia generally; 3, that certain medicines quickly quiet the cough, as they quiet neuralgia in other localities. X.

Localization of Movement in the Brain.—M. Maurice Raynaud has addressed a note to the Academy (*Bull. de l'Académie de Méd.*, 1876, No. 49) relative to the following interesting case reported by himself on July 21, 1876, to the Société Anatomique. In a phthisical patient there appeared suddenly, three days before death, a paralysis limited to the *upper limb of the left side*, and attacking in this limb the *extensor muscles of the hand on the forearm* almost exclusively. The only lesion observed at the autopsy was a very small focus of red softening developed on the right hemisphere about a meningeal tuberculous deposit. This centre, which was not as large as a five-cent piece, was situated on the *ascending parietal convolution* in the gray substance forming the bottom of the sulcus of Rolando, at a distance of five centimetres (two inches) from the superio-internal border of the hemisphere. This, however, is just the point which, in monkeys, according to Ferrier, is connected with the movements of the upper limbs. Several more or less analogous cases are known; but the peculiarity of this lies in the fact of brachial monoplegia having existed without any other cerebral disturbance, thus showing the direct connection between the cerebral lesion and the motor disturbance. X.

New Method of Detecting Small Quantities of Mercury in the Urine.—Whether or not mercury administered in certain ways, as by inunction, etc., is absorbed into the system, is sometimes a matter of doubt. The following method, devised by Ludwig, is capable, it is said, of disclosing very minute amounts of the drug; and if the same plan, or some modification thereof, can be applied to the detection of mercury in the milk, we shall be in a fair way of solving the question as to whether breast-milk can be used as a means of nourishing syphilitic infants and at the same time administering specific treatment. Ludwig's method is as follows. Half a litre of the urine to be examined is mixed with two to three cubic centimetres of hydrochloric acid warmed to 60° C., and then five grammes of granulated zinc are added, stirring briskly with a glass tube for the space of a minute. By this operation any mercury which may be present becomes amalgamated with the zinc and thrown down. After the solid portions have settled, the mixture is to be thrown on a filter, washed with hot water, and dried in a water-bath. The dried product is placed within a combustion-tube, drawn out at one end, and heated while a strong current of air is passing through the tube. The mercury, if any be present, is volatilized, and collects in the capillary portion of the tube. When the tube has cooled, the capillary end may be broken off, and a grain of iodine placed in one end and volatilized. This, of course, combines with the metallic mercury, and fine ruby crystals of iodide of mercury collect in the upper part of the tube.

In order to prevent any animal products which may be mixed with the amalgam from obscuring the reaction, a spiral of oxidized copper wire may be placed in the tube, between the zinc amalgam and the capillary end, and strongly heated. This will intercept the volatile products of organic combustion, should such be present. —*Wiener Klinik*, October, 1876, p. 313.

x.

Hypodermic Injection as a Local Remedy.—Dr. Luton, of Rheims (*Le Mouvement Méd.*, November 18, 1876) has employed hypodermic injections of salt water in the umbilical and other hernias of infancy with marked success. In one case of congenital umbilical hernia in an infant seven months old, six drops of a solution of salt in water, saturated in the cold and filtered, were injected into the subcutaneous connective tissue surrounding the umbilicus at the four cardinal points. A certain amount of plastic inflammation ensued, followed by contraction of the umbilical ring and retrocession of the hernia. No suppuration followed. Two similar cases were likewise successfully treated by the same method. A young man, twenty-two years of age, suffering from varicose tumors of the leg, was successfully treated by means of injections of five drops of a solution of nitrate of silver (1 to 5) into the cellular tissue just below two of the tumors. Periphlebitis ensued, followed by endophlebitis and the formation of a clot (different from the clot of coagulation following injections of iron, etc., in being quite free from risk), which hardened to a cord and resulted in complete cure. x.

Treatment of Granular Conjunctivitis (*La France Méd.*, 1877, p. 52).—The treatment of granular conjunctivitis should include both the prophylaxis and the therapeusis of this affection. Of course, in large bodies of men, and where the affection is epidemic, prophylaxis assumes the utmost importance. As to treatment, where the granulations are recent, indolent, without inflammatory complication, calomel ointment may be employed,—℞ hydrarg. chlor. mite, centigr. v ad xx (gr. ¾ ad iij); axungiæ, grm. x (℥iiss); or red precipitate ointment,—℞ hydrarg. ox rub., centigr. v ad xx (gr. ¾ ad iiij); axungiæ, grm. x (℥iiss). These may be smeared over the surface of the conjunctiva, occasionally cauterizing the granulations with sulphate of copper. When the granulations are pale and large, the cautery may be used every day or every second day. When the mucous membrane is red and injected, and when the secretion is muco-purulent, nitrate of silver in solution may be employed, —℞ argenti nitrat., grm. i ad iv (gr. xv ad ℥i); aquæ, grm. xl (℥x); or the mitigated crayon. Should papillary hypertrophy coexist, cauterizations with solution of subacetate of lead may be employed. Scarification may also be practised in connection with cauterization by means of sulphate of copper. Where the sulphate of copper is used, the eyes should be frequently washed out with pure water. Some authorities suggest yellow or black wash. (Dr. S. D. Risley, of this city, in a paper read before the County Medical Society, December 27, 1876, recommends a twenty per cent. solution of carbolic acid in glycerin, which he says has given him much more satisfaction than either the nitrate of silver or sulphate of copper.—Trans.) x.

Influence of Various Remedies upon the Secretion of Urine and its Constituents in Diabetes Mellitus.—Dr. Julius Jacobs (*Virchow's Archiv*, 1876, v. 67, p. 197), having a case of saccharine diabetes under observation, undertook a series of examinations of the patient's urine in order to ascertain the influence upon its secretion of oxygen inhalations; the same in connection with the internal use of reduced iron, infusion of juniper bark, tannic acid, and ozonized turpentine. Each of these remedies was employed during two weeks. Dr. Jacobs gives the results of his experiments in detail, and concludes with the following condensed table of results:

Average in Twenty-Four Hours.	Fluid Ingested, Cubic Cent.	Urine, Cubic Cent.	Specific Gravity.	Chloride of Sodium.	Urea.	Sugar.
Without treatment...	3707	5870	1030.37	50,713	91,241	38,731
Inhalation of 4500 cc. oxygen.....	5011	7860	1027.85	64,278	102,191	50,206
Inhalation of 20,000 cc. oxygen and iron.....	5743	9034	1030.07	57,257	121,878	61,600
Infusion juniper bark	6347	8627	1030.57	66,955	126,853	71,469
Tannic acid.....	5885	9717	1030.42	55,327	145,476	80,350
Ozonized turpentine.	5957	9588	1029.42	64,663	151,344	66,894

It will be seen by this table that none of the remedies used in this case had the least effect on the progress of the disease. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MARCH 17, 1877.

EDITORIAL.

THE UNITED STATES PHARMACOPŒIA.

IN our editorial of the last issue we tried to show that no necessity exists for the proposed assumption by the American Medical Association of the ownership of the United States Pharmacopœia, and that the practical working of the proposed plan would be to centre the responsibility in one man, as the sole representative of the civil profession of the country, instead of, as at present, in the hands of a committee whose function is unification of reports from all parts of the the continent. As Dr. Squibb would undoubtedly be selected, much interest attaches to the study of his proposed revised Pharmacopœia. In the first place, would such a Pharmacopœia as he proposes be superior to the old? In the second place, is its superiority so evident and so marked that it cannot be allowed to run the gauntlet of a discussion by experts, but must be adopted by a popular assembly, even at the risk of a general anarchy?

Our Pharmacopœia is composed of two parts,—a list of medicines which have achieved sufficient reputation to entitle them to recognition, and a series of formulæ for preparing these for use. Like the British and the new German Pharmacopœia, its idea is that of a code of laws to which obedience shall be given. The United States Dispensatory is an entirely different work: it is an exposition, so to speak, of the laws.

The Pharmacopœia must command obedience, and must be therefore dogmatic, without statement of general facts or of reasons, or of anything but the law itself. The Dispensatory concerns not merely the law, but also discussions as to the defects, virtues, and meanings of the law, of the best methods of fulfilling its behests, of the natural, commercial, and chemical history and of the therapeutic use of the medicines recognized, of the results of overdoses and of the antidotal treatment. It is plain that it must be a work of statement of fact, of reasoning, of personal opinion, of teaching, and can never command or expect obedience such as is yielded to law. From the pharmacist's point of view, it is a book of instruction for those who are not already fully acquainted with the practice of pharmacy; whilst the Pharmacopœia is for experts, who need only the formulæ to enable them to carry out its processes.

It is asserted that the United States Pharmacopœia exists because the Dispensatory does. But the British Pharmacopœia exists without a Dispensatory. It has been asserted by Dr. Squibb that the copyright of the Pharmacopœia is so held that there can be no rival Dispensatory. As this may be widely believed, it cannot be too widely contradicted; and we copy from Dr. H. C. Wood's pamphlet:

"The copyright of the Pharmacopœia is held by the chairman of the Committee of Revision, and is not owned by either the authors or the publishers of the United States Dispensatory. The Pharmacopœia is printed and distributed by agreement through J. B. Lippincott & Co., and probably any separate issue of it, without authority, would be resisted by the Committee of Revision. It partakes, however, of the nature of a public document; it is written for comment, and it is not probable that any court would justify the copyright as preventing such quotation as may be necessary for that comment. Such enforcement of the copyright would be an injustice, and would inevitably lead, as it ought, to a revolt against the authority of the Pharmacopœia. The authors of the United States Dispensatory have never controlled or attempted to control for their own advantage the copyright of the Pharmacopœia. Assuming the right of quota-

tion, they have quoted whatever they deemed necessary for their purpose. In this they have done no more than what has been the practice of almost every American or English writer upon Materia Medica or Therapeutics."

What Dr. Squibb sets forth as his idea of a Pharmacopœia is really that of a Dispensatory. He says it should "examine and epitomize, and record the results of current research, in a form adapted to current use, and to separate the good from the bad." This seems parallel to a legislature substituting for a code of laws a commentary on laws.

Besides converting the Pharmacopœia into a Dispensatory, Dr. Squibb proposes the establishment, under the auspices of the American Medical Association and under the management of their council, of a medico-pharmaceutical annual. Those who have had experience in attempting to get a new medical journal upon a paying foundation must, we think, look with great suspicion upon such a venture. There are, therefore, in the proposed changes of Dr. Squibb two new radical movements, both of them opposed to the practices of the past, and both of them, in our judgment at least, of very questionable wisdom. This being so, it seems absolutely necessary that the matter be freely discussed by experts, and we most sincerely trust that the American Medical Association will refer the whole subject either to a commission of experts especially selected for the purpose by its president, or, better, to the body of experts selected by the profession at large and known as the National Convention for the Revision of the United States Pharmacopœia.

CORRESPONDENCE.

LONDON LETTER.

WE are still having a continuance of the mild weather by which this winter is characterized. The sale of flowers in the streets is unusually brisk, and many shrubs are covered with well-developed buds. The consequence of the mildness has been that there is an unwontedly small amount of pulmonary disease about. Fixed colds have been far from frequent; and it will be interesting to observe how far this will be found to affect the number of cases of phthisis in its early stages which will present themselves at the hospitals in spring. It would appear that in a large number of cases there is a history of a severe cold about the New Year. This is apparently shaken off, but in a month or two the patient finds himself losing flesh, sweating severely at nights, and troubled with an exasperating hacking cough with very little expectoration. On examination, one or other lung will be found to be dull and resistant to percussion, the respiration in that part to be deficient, jerking, with prolonged expiration, and, less frequently, pronounced râles.

The tendency of such a case is undoubtedly to become tuberculous if the assimilative powers are defective or the salts of the body are drained away in the sweats. In either case there is a deficiency in the body of a very vital element in food-nutrition, and if the condition is not remedied it soon proceeds from bad to worse, and the solidified lung breaks down, a periodical hectic comes on, and the patient swims for his life. The cough which is set up reflexly is unequal to the removal of the irritating masses until they have softened down throughout their structure and have ulcerated sufficiently round their edges to perforate a bronchial tube and thus to be expectorated. This forms a time of grave danger, and, if survived, is followed by a period of disturbed health of greater or less duration, until the cavities so formed assume a chronic condition, either by their walls falling together or becoming covered with a lining membrane. One of the most interesting points in connection with phthisis is its relations to these inflammatory conditions of the apices of the lungs. We are all familiar with the fact that acute inflammation of the lungs involves, in the majority of cases, the lower lobes, less frequently the middle, and very rarely, if ever, the apices of the lungs. It is stated that the first stage of this apicial consolidation is that of bronchitis, and that this extends through the walls of the bronchial tube and excites cell-growth in the lung-tissue; but then bronchitis is infinitely oftener found in the middle lobes than at the apex. Amidst the many workers at phthisis it seems unfortunate that no one devotes his attention to the question of why the apices are the parts selected and the disease spreads from above downwards, as it does in this form of disease. The practical value of the recognition of these causal relations of phthisis is the necessity for physical examination of the lungs after severe colds, and if there is found this consolidation then to set to work and leave no stone unturned to improve the patient's general condition, and to prevent that deterioration of the general health which is liable to follow, and which

causes, in its turn, the lung-changes to take on a malign aspect.

In continuing his Lettsomian Lectures, Dr. Wiltshire has described the different forms of *hemorrhage* from the *female generative organs*, his last lecture being engaged with the treatment of the different varieties of these maladies. A rare and very troublesome affection is that of hemorrhage from the ruptured hymen of a bride who is the subject of hæmophilia, or of the hemorrhagic diathesis. It appears hæmophilia is rare in women, being in the proportion of one to seven in males, but that when it is present it constitutes a very annoying, if not even dangerous, condition to the bride just commencing her wedding-journey. Instances were given where very grave hemorrhage was the result of the completion of the marriage-rite. The use at first of ice and astringents, alone or combined, was advocated, and afterwards of such measures as involved the exposure of the patient only when they became absolutely necessary. Dr. Wiltshire insisted that in cases of uterine hemorrhage it was desirable to commence by carefully looking for every other cause of it than disease of the womb itself. It was much too common to assume in such cases that the loss must have only a local cause, and other sources were not always sufficiently carefully eliminated. The tendency of specialism to narrow the view was often urged, but he did not see why the special study of a subject would not rather enable it to be seen in wider relationships. He then pointed out the different forms of the truly menorrhagic flow, with their appropriate treatment. He laid much stress on the treatment of the patient during the interval and then during the time of the flux, each of which he declared to be equally important. He also laid special stress on the desirability of exhibiting vegetable and mineral astringents in free quantities a day or two before the anticipated flow came on. He advocated the use of iron in those cases where the patient is anæmic and pallid; if necessary, abandoning the chalybeate for mineral astringents and ergot at the time of the flux. In cases of menorrhagia in the plethoric, he did not think iron indicated, and preferred a cooling regimen, with the use of astringents and sulphate of magnesium. In those cases of menorrhagia, chiefly occurring in the young, which depend upon ovarian excitement, the ordinary measures are of no use, and full doses of bromide of potassium or ammonium are to be resorted to. The unloading of the pelvic viscera by full doses of aloes was recommended in both these latter forms. The subject of internal hemorrhages and the formation of pelvic hæmatocele were not touched upon, for want of time.

The subject of *opium-taking* is one of considerable attraction, and, as diversities of opinion exist about the effects thereof, it may not be uninteresting to your readers to know what is thought on the subject by Dr. Macartney, who has risen so high in the Chinese service. Though he has for many years abandoned his profession, he still takes much interest in medical subjects. As to opium-smoking, he admits its direful effects upon those who give way to it, just as in the case of alcohol. If the smoker be a poor man, whose earnings all go in that direction, and who is in consequence insufficiently fed, then the evil effects are soon apparent. But in other cases, where the individual is well fed and in comfortable circumstances, the daily pipe does not seem to be followed by evil consequences. The craving for it at the accustomed hour is exceedingly strong, indeed irresistible, but that is all. The pipe is taken, a delightful snooze follows, and the matter ends. It appears, however, that, whatever may be the effects upon the imagination so produced, the Chinaman does not attempt to transact any business when under the influence of the drug. He knows better than that. In this respect opium again resembles alcohol, and the pipe is resorted to after a successful bargain, as is the bottle of fizz in Western lands. He also quite corroborates the statements of Norman Chevers and others as to the ease and safety with which abortion is procured amidst the Chinese in common with other Eastern nations.

The Pathological Society has had a great discussion on *visceral syphilis*, which, if it has not yet brought forth anything absolutely new, has at least cleared the ground and displayed what is already known. The discussion, which has occupied already two evenings, has been illustrated by numerous microscopical preparations, sections, etc., drawings, preparations of the coarser anatomical lesions, etc. The first subject introduced was that of enlargement of the spleen in syphilitic children. It was stated by Dr. Barlow, who was corroborated by Jonathan Hutchinson, that in such children great enlargement of the spleen was very common. It caused no apparent disturbance, and in time disappeared entirely. The subject of the syphilitic affections of arteries was then brought up, and much interesting information was afforded by different speakers. The résumé of it all is something to this effect. There is a diffuse cell-growth around the vessel, including its external coat and the adventitia, sometimes of a nodular character, as it were of small gummata. Then there is also a cell-proliferation from the endothelium, which may be underneath the tunica intima like an atheromatous patch, or extend into the vessel, forming a thrombosis. In either case the lumen of the vessel was much reduced, and with that the flow of blood through the vessel. Such were the changes formed in the smaller vessels. There was much diversity of opinion exhibited as to whether in such change there was a special morbid process *per se*, or only the ordinary

atheromatous change, somewhat modified by the presence of syphilis. That the blood-vessels are largely implicated in constitutional syphilis was admitted by all. As to the changes in the larger vessels little was said, though Myers and other military authorities were present, and, had the opportunity offered, could doubtless have told of the ravages wrought by syphilis in the aortæ of soldiers. Jonathan Hutchinson asked if changes had ever been recognized by the ophthalmoscope in the retinal arteries of syphilitic subjects. Mr. Hulke stated that he had rarely seen them, and only once in an undoubtedly syphilitic subject. A great deal of evidence was furnished as to the changes induced in the brain and its meninges by syphilis, and also in the roots of the nerves supplying the muscles of the eye, complete fixity of the eyeball being no rare event. Mr. Hutchinson, with his immense knowledge of the subject and his wonted perspicuity, described the pathology of syphilis "as seen in the living and not in the dead." So readily amenable to treatment is syphilis that he said he was indebted to a mistake in diagnosis for the preparation which he exhibited. This mistake arose from allowing the apparent respectability of the lady patient and her social position to introduce a disturbing lens betwixt his vision and the objective phenomena of the patient. In this case there was disturbance of vision, with fearful headache, for some years before death. The skull was found much thickened, the dura mater was adherent, and the pia mater contained syphilitic masses. There were also convulsions, loss of speech, and ultimately coma, before death. Mr. Hutchinson said that the term "cerebral syphilis" was now much too vague, in consequence of the advance of our knowledge of the subject in recent years. A description was then given of the syphilitic changes in the lung. It appears that there are cell-proliferations around the vessels and the exterior of the bronchial tubes just as in ordinary tubercle, and the question might be raised how far the presence of syphilis modifies the tubercular process as it does other morbid processes, or whether there is a syphilitic phthisis *per se*. As to any special indications of syphilitic disease, it was stated that in syphilitic disease the apex is not the part affected, but rather the roots of the lungs and the middle lobes. Syphilis, too, is ever associated with fibroid rather than tubercular changes, and syphilitic growths do not undergo caseous changes, usually at least. The discussion, unfortunately, gave no indications how syphilitic disease of the lungs and other viscera was to be distinguished from other like changes. The history had to determine the question until post-mortem examination settled it finally, so far as the patient, at least, was concerned. Certain it is that a chronic pneumonia is not rarely found in syphilitic subjects, and that it clears up under mercury and iron much more speedily than do other forms of chronic pneumonia under tonics, cod-liver oil, etc. The practical upshot of the inquiry so far is this: there are various internal changes to which the subjects of syphilis are specially liable, but there are no pathognomonic indications furnished, and the treatment is to be mainly directed by the general history of the case.

It seemed, apropos of this discussion, not out of place to visit the Dreadnaught Hospital, at Greenwich, for sick sailors of all nationalities, and learn what the officials there had to say about visceral syphilis. It is notorious that sailors go on board ship suffering from primary syphilis in its severest forms, and often the ship sails away and for months they either have no treatment or only that of the captain, so that there is furnished an excellent opportunity for the system becoming thoroughly infected. Under such circumstances, then, it might fairly be expected that the Seaman's Hospital would be rich in experience of visceral syphilis. Such, however, turns out not to be the case; and the resident surgeon informed me that he had encountered but one syphilitic liver in an experience of six years. Other forms of syphilitic disease of the viscera were equally rare; so that apparently there must be something about the surroundings of the sailor which exercises an ameliorating effect upon acquired constitutional syphilis. Much, too, depends upon the diathesis of the individual who contracts syphilis as to its ravages, and also as to passing conditions, such as sustained inebriation, partial starvation, overwork, etc.

The Seaman's Hospital at Greenwich is rarely visited by American students of medicine; and yet it is well worth a visit. There are numerous interesting cases always to be found there; while the resident surgeon is one of the most courteous and obliging of gentlemen, and is always willing to give himself trouble to show visitors all that is to be seen. The hospital also furnishes practically unlimited supplies of material for operative surgery, being much better off in that respect than any other institution in or near London. Classes for such purpose are conducted by the resident surgeon, who is also a competent teacher.

A pleasant sail down the river, an hour or so of operations, two or three interesting cases of accident or disease to be seen, ought to form a programme for an occasional afternoon a week, well worthy the attention of American students in England. Amidst the cases in at present is one of a severe smash of the right side of the forehead. The skull is driven in extensively, and there is a large internal wound, which bled freely at the time. Shortly after the shock the man recovered consciousness, and, though not very bright, converses rationally with his wife about his affairs, distinguishes clearly the names of children, and, altogether, seems little affected by the smash

as regards his intellectual powers. This case corroborates the view now held, that the left side of the brain is the "driving half," and that the right side occupies a subordinate place.

The Hunterian oration at the Royal College of Surgeons was delivered this year by Sir James Paget, whose oratorical powers are so well known. The attractions thus furnished were supplemented by the presence of the Prince of Wales, the Dukes of Argyll and Westminster, Mr. Gladstone, Professors Huxley, Tyndall, etc. The room was crowded to overflowing some time before the oration commenced, and many of the leading members of the profession were present. The ornate sentences, the graceful thoughts couched in rounded periods, brought forth repeated applause as the orator proceeded. He first alluded to the presence of the heir-apparent, as showing the advancing condition of the professional status; and then, after giving a subtle analysis of Hunter's character and the scope of his work, in its almost limitless bearings, he referred to the recent death of Sir William Fergusson, Sergeant Surgeon to the Queen. He spoke of his cool yet swift manner of operating, his imperturbable self-possession, the keenness of his eye, the strength and dexterity of his lissom fingers, which combined made him the greatest operating surgeon of his day. He also stated how from his genial manner, his humorousness, and his bearing, he was as popular with the public as with the profession. These compliments to his great rival in public favor were received with rounds of applause.

Sir William Fergusson was essentially an operating surgeon; while Sir James Paget is sought rather for his opinion, without which few of the wealthy classes have an operation performed. The two, though rival stars, did not conflict. From his early days Fergusson was remarkable as an operator, and in 1831 was already a teacher in the extra-mural school of medicine in Edinburgh. He was thus a well-known man when he first came to King's College, where his illustrious career in London was exclusively run. His contributions to surgical literature were not extensive, and his best-known work is a surgical hand-book, which never held much more than a mediocre position. His name is largely associated with the operation for hare-lip, and with affections of the bladder. He always spoke in markedly Scottish accents, decidedly Doric, which gave a certain charm to his shrewd sentences. He was far from an orator at the best of times; but he possessed other qualities that strongly endeared him to those who came in contact with him. Among these was a dry humor peculiarly Scotch, and, though no *raconteur*, he enjoyed a good story thoroughly.

As an instance of his coolness, it is related that once when operating for the removal of a deep-seated tumor of the neck a large artery was severed and a tremendous gush of blood followed. An assistant promptly thrust his finger into the wound, with the intention of arresting the loss. Fergusson, quite unperturbed, said, "Jist get your finger out of the way, mon, and let's see what it is," and, quietly securing the vessel, went on with his operation. Sir William had been failing for about a couple of years, and last year his death was daily expected for some time,—when, to the great delight of every one, he rallied. On his return from Scotland in October last he looked very well; but, though the winter has been unwontedly mild, he gradually sank. A large crowd of friends, including a great number of the profession, and as many of the officials of King's College as the institution could possibly spare at one time, assembled at the Euston Square terminus to see his remains placed on the London and Northwestern Express for Edinburgh. Thirty-seven years after the young Scotch surgeon, almost without a friend, came to offer himself as a candidate for the chair of surgery at King's College, the profession mustered in force to see all that was left of the great surgical baronet on its way back to the land of his birth, that he might lie beside his kith and kin at West Linton, the family burying-place. Few of the men who "aimed south" to seek their fortune have died so regretted, and withal so universally respected, as the laconic Sir William Fergusson.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, DECEMBER 14, 1876.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

(Continued from page 259.)

Amputation of leg after compound fracture causing necrosis of tibia and fibula and disease of ankle-joint. By Dr. T. B. REED, for Dr. REYNOLDS.

T. M., æt. 39; born in Ireland; occupation, gardener; was kicked by a horse thirteen years ago, causing a depressed fracture of the tibia of the right leg in the lower part of its middle third, and a compound comminuted fracture of the fibula, about the same point.

The wound remained open nine months, and the tibia was then cut down on and several pieces of dead bone were removed (parts of the fibula) by Dr. Packard, after which the leg was entirely healed in three months, since which time he was entirely free from pain until three years ago, when he began to have severe pain in the right ankle, which he supposed was rheumatism, and for which he was treated for some time. Afterwards he was treated in the Episcopal Hospital for periostitis.

Receiving no relief, he left the hospital, and was then under the care of Dr. Bolling, who consulted Dr. Hodge. Dr. Hodge cut down on the lower end of the tibia, giving vent to confined pus. This was followed by four days' freedom from pain, after which it returned and was more severe than ever before. Dr. Hodge was again called, and advised sending him to the Presbyterian Hospital. He was admitted April 19, 1874. The leg was poulticed for a week, when Dr. Hodge cut down again to the lower end of the tibia, and sawed deeply into it with Hey's saw, and at the same time removed about one inch and a half of the internal saphenous nerve, just above the internal malleolus.

This gave him immediate relief, and after remaining in the house forty-two days he was discharged cured.

He remained free from pain or any symptom of disease until about the 1st of September, 1876, when he fell and sprained the same ankle. This was followed by pain of an intermittent character, which continuing to get worse, he again went to Dr. Bolling, September 12, who consulted Dr. Hunt, and again his disease was pronounced periostitis. The limb was painted with iodine for two weeks, and he then came into the Presbyterian Hospital, unimproved, September 26, 1876. At this time there was some redness of the skin, and he complained of severe pain, which was worse at night.

September 30, 1876.—The leg was blistered over the painful part; was followed by abscess, which opened and was found to lead into the tibia at a point two and a half inches above its lower end. The limb was then poulticed. Following this he experienced some relief, but soon began to get worse, and, being unimproved, was again blistered, November 12, over the front of the ankle. This was followed by a large abscess over the internal malleolus, which was opened November 27, evacuating a large quantity of pus followed by considerable hemorrhage. This gave him temporary relief. He again became worse, and in a consultation of the surgical staff of the hospital, December 9, it was decided to amputate the leg. The operation was performed by Dr. Reed, the amputation being made in the upper part of the middle third.

Examination.—The skin is found to be firmly adherent to the tibia in several places, being the cicatrices of his original injury and of more recent abscesses. There is an opening through the skin and into the tibia about two and a half inches above its articular margin. Below, just over the end of the tibia, there is a large, irregular ulcer, communicating on the inner side with the sac of the last abscess over the internal malleolus, and on the outside leading down into the joint.

Tracing down the internal saphenous nerve, it is found to be hypertrophied, and at a point three inches above the malleolus it spreads out into a broad fan-shaped expansion of firm fibrous tissue, which being dissected up about an inch is found to be firmly attached to the deep fascia; below its continuity is lost or destroyed by the abscess over the malleolus. The internal saphenous vein is found to lead into the sac of the abscess, the end being open.

The whole anterior edge of the lower end of the tibia is necrosed, opening into the cavity of the bone, and communicating with the opening above. The interior of the bone is diseased about one inch above the upper opening, or three and a half inches above the lower end of the bone. Several points on the articular face of the astragalus, and its whole anterior edge, corresponding to the diseased part of the tibia, are necrosed. There is also some necrosis of both the tibia and fibula at the articulation.

Dr. HODGE said that he had seldom seen any one suffer more pain than this man did before the operation by himself two and a half years ago. After sawing deeply into the tibia and removing a section of the internal saphenous nerve, the patient was free from pain and could do active work until last September. Since then all this destruction of bone must have occurred.

Extensive ulceration of the small intestine, following obstruction of the bowel. By Dr. R. G. CURTIN, for Dr. JAMES F. WILSON. History by Dr. WILSON.

E. M., aged 38 years, the mother of six children. At the commencement of her last illness she was about seven months pregnant. She had had no unusual symptoms prior to those of obstruction, which presented themselves on the 13th of September, 1876. These were obstinate constipation, stercoraceous vomiting, and pain in the right iliac region. These symptoms increased until the 17th of September, when she had a premature labor, after which the symptoms of obstruction were immediately ameliorated. The next day she had a small stool, although the vomiting was not so severe, but still continued. She would retain food for several days, then the vomiting would be frequent for a day or two. The bowels were quiet, but not confined. Pressure in the epigastrium caused her intense pain. These symptoms continued. She grew weaker and weaker. Emaciation became extreme until the 12th of December, when she died. She had complained of very little pain in the lower part of the abdomen for two months before her death.

Post mortem.—All the organs were pallid, but otherwise apparently healthy, except the small intestine, which was found to be in a state of ulceration for about eight inches, the ulceration commencing about twelve inches above the ileo-cœcal valve and encircling the whole intestine. At the upper and lower end of the ulceration the intestine was very much contracted, so that it was with difficulty

that the end of the little finger was passed through these constrictions. The ulcerations presented very much the appearance of those of dysentery. Peyer's patches above and below the ulceration were not affected. At several points the ulcers were almost entirely through the intestine, and the peritoneum at these points was adherent to other portions of the intestine.

She had had at no time any symptoms of dysentery. Probably the amelioration of the symptoms following labor could be accounted for in this way. The uterine tumor, rising upwards, bent the intestine on itself at the point of constriction, and thus prevented the passage of the contents of the bowels.

Cystic disease of broad ligament, ovary, and fibrous tumors of the uterus. By H. LENOX HODGE.

The patient from whom these tumors were removed was 46 years old, and had suffered from them for three years. She was first tapped in March, 1876. Since then she has been tapped many times, and the cysts once injected with iodine; but ovariotomy was not done, on account of extreme prostration since she came under my care. The fluid removed looked like starch-water, had a specific gravity of about 1008, and contained little or no albumen. Microscopical examinations of the fluid have been made by Dr. Tyson and by Dr. Richardson, who will report the result of their examination. Fluid from these cysts was exhibited to the Society several weeks ago, and its peculiarities commented upon.

Both ovaries are enlarged. The left was bound down by adhesions behind the uterus, and presents hemorrhagic marks upon its surface. The patient had expected her menses about three weeks before her death; but they did not appear.

The right ovary is about as large as a walnut, and contains a thick grumous substance of a brown color.

The mass of the tumor springs from the right broad ligament and is distinct from the ovary. The mass consists of two large cysts filled with fluid described as above, mingled, since the iodine injection, with some pus. These cysts contain in their walls several smaller cysts with semi-solid contents. The tumor on its anterior surface was firmly adherent to the abdominal walls.

The uterus was enlarged about three times its natural size, and contained a number of subperitoneal fibroid tumors, and a small polypus projecting from the external os. This accounts for the tendency to menorrhagia which existed, and is unusual in uncomplicated ovarian tumors.

The liver was found pressed up high in the thorax, its upper surface reaching above the nipple to the fourth rib.

The rest of the abdominal organs were normal, except that the stomach and large intestines were distended with gas.

Dr. JAMES TYSON said he had examined some of the fluid microscopically, at the request of Dr. Hodge, and had found large numbers of the small granular cells,—the so-called "ovarian cells."

Dr. J. EWING MEARS said that he thought the portion opened as the ovary before the Society was really a cyst,—an exogenous cyst. The tumor consists of endogenous and exogenous growths, the latter being upon the periphery and sometimes rupturing into the peritoneal cavity. They are filled with the same fluid as the endogenous cysts.

Dr. HODGE said that this was his own opinion prior to the post-mortem examination, which corroborated the diagnosis in all other respects. Before death, a small rounded tumor was felt above Poupart's ligament of the right side. This was believed to be an exogenous growth from the main tumor. The patient herself said it was the ovary, and it seemed sensitive to pressure. Upon the post-mortem examination it was found to hang like the ovary from the posterior surface of the broad ligament, and bore the usual relation of the ovary to the Fallopian tube. In the opinion of all present at the examination, it was the ovary which had become cystic, and that the chief tumor came from the broad ligament. Since the examination the specimen has lost much of its original appearance, especially by the collapse of this small cyst. This case is interesting not only in reference to the so-called ovarian cell, but also in reference to the presence of albumen in these cystic tumors. The fluid obtained by the numerous tappings contained no albumen, except at the last tappings, and then only in small quantities. This I have observed in other cases, even in a more marked degree,—a tumor which at first possessed all the characteristics of a tumor of the broad ligament, monocystic, containing a very thin fluid, of low specific gravity, clear as spring-water, and without albumen; such fluid returning after tapping, with the characteristics of an ovarian fluid, being thick, of high specific gravity, dark color, and loaded with albumen, thus suggesting that the disease has extended from the broad ligament to the ovary. This may have occurred in this case.

The specimen was referred to the committee on the "Ovarian Cell," with a view to determining the nature of the portion which was found at the post-mortem examination "to hang like the ovary from the posterior surface of the broad ligament."

Report of the Committee.

"The growth is a multilocular cyst of the ovary. The small projecting portion on the external surface of the growth was found to be a small, distinct, exogenous cyst, containing fluid similar to that in the parent cyst. Careful examination did not reveal the presence of any portion of normal structure of the ovary."

"Dec. 28, 1876."

REVIEWS AND BOOK NOTICES.

A Practical Treatise on Diseases of the Skin. By Louis A. Duhring, M.D., Professor of Diseases of the Skin in the Hospital of the University of Pennsylvania; Physician to the Dispensary for Skin Diseases, Philadelphia; Author of "Atlas of Skin Diseases," etc., Philadelphia, 1877.

Amidst the gallimaufry of modern medical literature, trustworthy treatises upon Dermatology have long been conspicuous by their absence. Extended experience, accurate observation, sound judgment, and the ars docendi, the four cardinal virtues of the medical author as he should be, are but rarely found united in one individual. At last, however, we have a practical treatise, so full and systematic, so sound and sensible, and so scientifically exact, that we unhesitatingly recommend it as the text-book in Dermatology for students and practitioners in America. There have been, it is true, valuable treatises—now antiquated; there are valuable modern works—too extended for the student's time, means, or needs; there are concise and practical manuals—in other languages; there are excellent translations of these, and there are valuable English hand-books; still we have not, as yet, possessed exactly what is required; for the former do not give to the treatment quite the amount of space demanded by practical physicians, while the latter are dealing with an essentially different material, unlike surrounding conditions, and with more or less dissimilar types of the diseases themselves. Dr. Duhring's treatise is abreast of modern investigation, is condensed within the limits of the needs of the general practitioner, is adapted, as to treatment, to the requirements of the medical profession in this country, and is withal so thoroughly complete in itself, while at the same time exceptionally clear, that the possessor of this volume will for years to come require no other in this branch of medicine. And to all this may be added that it possesses several novel and specially distinctive features of its own. Among these we would call particular attention to:—I. The minuteness of detail in the descriptions of the individual lesions, for upon accuracy in description the author lays great stress. Thus he contends that "it is not enough to say that an eruption consists of a group of pustules, these must be separately studied and their characters described." II. The illustrations of the structure of the normal skin and of the parasites, the work of Dr. Arthur Van Harlingen, whose admirable original drawings constitute an agreeable variation from the familiar stereotyped illustrations of other works. III. The adoption of the classification of Hebra, founded on pathological histology, this being the first work on Dermatology in the English language based boldly upon the German system of classification. IV. The avoidance of theoretical or unsettled points and of useless or obsolete terms. V. The omission of cases, which would have been out of place in a book of this description.

The scope of the work is to furnish a handbook for students and general practitioners, and its key-note is struck in the first lines of the preface, "a concise, practical, and useful treatise;" the history of Dermatology and its constituent parts is therefore very properly omitted. The subject matter is otherwise well arranged. The volume contains 618 large octavo pages, and consists of two parts, the former devoted to "General Considerations," Anatomy, Symptomatology, Etiology, Pathology, Diagnosis, Treatment, Prognosis, and Classification; the latter to "Special Diseases," under nine separate classes, Disorders of Secretion, Hyperæmias, Exudations, Hemorrhages, Hypertrophies, Atrophies, New Growths, Neuroses, and Parasites.

Part I. is ably and carefully handled. No part nor appendage of the skin is neglected anatomically. The remarks upon "external causes," under Etiology, have a special practical value. The chapters on Pathology and Diagnosis are well arranged and clearly expressed. That devoted to treatment is judiciously considered. A few more words as to the importance of what all know and each neglects—hygiene—might possibly have been of value. Under "arsenic" the folly of the use of this drug in all cases of disease of the skin, as routine practice, is most properly alluded to, while under "caustics" the weakness of nitrate of silver, which hardly deserves the name of caustic, and the dangers from the over-use of caustic potash, might have been with propriety even more forcibly stated. The "classification" is excellent, based, as it should be, upon Anatomy and Pathology, and clear and sharply defined in its groupings. The twelve classes of Hebra are reduced to nine, the anæmiæ, pseudoplasmata, and ulcerationes not being regarded as distinct classes.

In Part II. the schema, consistent, simple, and good, of the separate lesions, is as follows: Name; Synonyms; Clinical Definition; then, Symptoms; Etiology; Pathology; Diagnosis; Treatment; Prognosis; all showing accurate observation, diligent study, soundness of method, good judgment, practical common sense, and a skill based upon actual experience. In Class I. a little more space might have been with propriety devoted to the views of the antagonists of the theory of the sebaceous nature of Molluscum. Nor will this lesion need a qualifying adjective to distinguish it from the neoplasm of Class VII. if for the latter the anatomically preferable designation of Virchow, Fibroma Molluscum, be substituted for that of "Molluscum fibrosum." In this class Sudamina is regarded as the Miliaria Crystallina of Hebra, while

Miliaria, Class III., is considered identical with the Sudamina of that author. In Class III. the term Lichen Planus is adopted in accordance with the views of English writers, and is made to include the Lichen Exudativus Ruber of the Vienna school. To this class is added also the lesion Impetigo Contagiosa. In Class V. we find Dermatolysis separated as a distinct lesion from Fibroma Molluscum. In Class VI. the "Keloid of Addison," from *kelis*, a burn, classed by Kaposi as Sclero-derma, is described under Morphœa, and this last is distinguished from the anæsthetic spots of Leprosy. In Class VII., the Cheloide of Alibert, from *chele*, crab's claw, is divided into spontaneous and cicatricial, instead of, as formerly, into true and spurious. Here also is placed Pellagra, which we must consider as belonging more properly to the exudative erythemata, while Framboesia is, and with more justice, annexed from the class of Hypertrophies in the German nomenclature. Here may be found introduced, as a new but definite cutaneous lesion, Neuromata of the skin, for our knowledge of which we are largely indebted to the investigations of the accomplished author. In Class IX. we notice as an improvement in nomenclature, already generally adopted by Dermatological specialists, that the various forms of vegetable parasitic disease are united under the title Tinea as the substantive, the botanical and consequent clinical variations of type being designated by qualifying adjectives.

Generally considered, we note the absence of the contagious inflammatory processes, Variola and Vaccinia, Scarlatina, Morbilli and Rubeola [Rötheln], which might well have been touched upon even though not considered at length. The chapter upon the Syphilodermata is especially carefully considered, and Scrofuloderma, often neglected by Dermatological authors, finds also a place. Moreover, the superiority of this nomenclature over that of the patronymical forms in "ide" is self-evident. Under Eczema the remarks upon differential diagnosis deserve close attention. Prurigo is most justly considered as a disease by itself, of distinct and well-characterized type, and is distinguished from Pruritus, itching, which is not a disease but a mere nervous symptom, and from Phtheiriasis, or the results of pure external irritation due to lice and scratching. In England these three totally distinct processes are hopelessly confounded, and much confusion also exists in regard to the distinctions between Psoriasis, Elephantiasis Græcorum and Elephantiasis Arabum, upon which distinctions the author might have perhaps advantageously laid even more stress. As individual points we approve the grounds held in regard to several questions, viz., the distinction between the sthenic or exudative form of Acne and the cachectic form with comedones; the fact that Rosacea, or dilatation of capillary blood-vessels, may occur alone or precede the formation of Acne; the non-parasitic origin of Alopecia Areata; the non-contagiousness of Leprosy; the existence of Pityriasis Rubra as a distinct disease differing from Eczema Squamosum; and the adoption of the term Lentigo in preference to the etiologically false one Ephelides. Under Acne the practical point of the incompatibility of preparations containing sulphur with those containing mercury or lead might well have been touched upon. We should have been pleased also had the metric system been adopted in the prescriptions given.

As a whole, however, the volume is so consistently good, and so smoothly and harmoniously rounded in its entirety, that it lacks salient points upon which to attach adverse criticism. The style is clear and interesting, the paper, type, binding, and proof-reading are unexceptionable, and the book concludes with a bibliography and a carefully prepared index. It has our honest and hearty approval and commendation. E. WIGGLESWORTH.

A COURSE OF ELEMENTARY PRACTICAL PHYSIOLOGY. By M. FOSTER, M.D., F.R.S., Fellow of, and Prælector in Physiology in, Trinity College, Cambridge. Assisted by J. N. LANGLEY, B.A., St. John's College, Cambridge. 12mo, pp. 244. London, Macmillan & Co., 1876.

The increased attention which has of late years been paid to Practical Physiology and Histology has resulted in the preparation of a number of useful manuals, which are published as guides to the worker in these departments. Among the very best of these is the little book under consideration. Its peculiarity is that in it histology and physiology are closely combined, instead of being separated into two or more distinct courses. Although the author, according to his own statement, stands alone in this method, continued experience makes him more and more convinced that the plan he adopts, though troublesome, is the safest one. In it, as far as practicable, the anatomy and histology of each tissue or organ are studied, and then without delay the physiology; "so that the student may, in learning what is known concerning the action of the part, form an opinion of the relative importance of the structural details." We quite agree with the author, where time will admit the length of courses which are necessitated by such a method, which requires from fifteen to eighteen weeks, and are satisfied that any student who works through the lessons of this volume will have a thorough knowledge of the elements of histology and physiology. We would strongly recommend its adoption as a guide in the physiological laboratories which are springing up in connection with many of the medical schools of this country. It is conveniently bound in flexible covers, and admirably adapted to the purpose for which it is intended. J. T.

CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by Dr. H. VON ZIEMSSEN. Vol. VI.—DISEASES OF THE CIRCULATORY SYSTEM. By Prof. ROSENSTEIN, of Leyden; Prof. SCHROTTER, of Vienna; Prof. LEBERT, of VEVAY; Prof. QUINCKE, of Berne; Dr. BAUER, of Munich; Dr. STEFFEN, of Stettin; Prof. VOGEL, of Dorpat; and Prof. WAGNER, of Leipsic. ALBERT H. BUCK, M.D., Editor of the American Edition. New York, William Wood & Co., 1876.

The present volume of Ziemssen's work embraces also matter which should have been included in volumes vii. and viii., comprising the chapters on whooping-cough, diseases of the lips and cavity of the mouth, and diseases of the soft palate. Perhaps the most important articles in the volume are those by Schrotter, Quincke, and Bauer on the diseases of the cardiac substance, the arteries, and the pericardium, respectively. Some of the articles, notably that of Vogel on affections of the lips and cavity of the mouth, seem to us scarcely to possess a *raison d'être*,—the ground has been, or will probably be, in great part covered by other contributors to the Cyclopædia; and occasionally the articles on some less important topics are so brief as to be very unsatisfactory.

A TREATISE ON HERNIA, WITH A NEW PROCESS FOR ITS RADICAL CURE, AND ORIGINAL CONTRIBUTIONS TO OPERATIVE SURGERY, AND NEW SURGICAL INSTRUMENTS. By GREENSVILLE DOWELL, M.D., Professor of Surgery in Texas Medical College, etc., etc. Philadelphia, D. G. Brinton, 115 South Seventh Street, 1876.

Professor Dowell, in a work of about two hundred pages, has given a brief description of the many forms of hernia, together with the various plans of treatment, palliative and curative, that have been devised for its relief by different operators.

In addition to the subject of hernia, about one-third of the book is devoted to an account of several new surgical instruments that have been invented by the author.

The portion of the monograph on hernia that is of the greatest interest is that which contains a short explanation of the author's method for the radical cure of hernia.

In this method the serous surfaces at the neck of the hernial sac are brought in apposition by subcutaneous metallic sutures. These sutures are allowed to remain in position for a period varying from five to eight days, the indication for their removal being the amount of irritation excited by their presence. The chief risk attending this operation is that of peritonitis, which may become general. Of course, local inflammation of the opposed surfaces of the sac is essential to the success of the operation, and by judicious treatment the inflammatory action can be prevented from extending to the general peritoneal surface. For some time after the sutures have been removed, it is necessary that the recent adhesions at the neck of the sac be supported by a soft compress, retained by a spica of the groin, or by a truss with a soft pad.

The writer of this notice has had an opportunity of repeating this operation three times in cases of complete indirect inguinal hernia.

The immediate result in each case was highly satisfactory: what the ultimate result will be, time only will enable us to determine.

Professor Dowell reports sixty-eight cases operated on by himself since 1859, with only eight failures, and no fatal results.

The only instrument used in this operation is a semicircular needle, five inches long, spear-pointed, with an eye near one extremity.

The new surgical instruments described by the author are of very little practical value, and probably will never be generally used by surgeons. Their invention to meet a variety of indications shows that the author possesses more than ordinary mechanical ingenuity, a talent of great service to the surgeon.

The work contains quite a large number of illustrations of a very poor character, especially those designed to aid the reader to understand Professor Dowell's method for the radical cure of hernia. C. T. HUNTER.

GLEANINGS FROM EXCHANGES.

THE SIGNIFICATION OF AN UNRUPTURED HYMEN IN PREGNANT WOMEN (*The Medical Press and Circular*, December 27, 1876).—Prof. Braun, of Vienna, arrives at the following conclusions in connection with this subject:

1st. An unruptured condition of the hymen cannot alone be regarded as a sign of virginity.

2d. The hymen may possess so much elasticity that a not very voluminous organ may penetrate the aperture without leaving any trace of its presence in the vagina, so that the individual may be regarded as a virgin in the anatomical but not in the gynæcological sense.

3d. Various cases show that for impregnation to be produced it is not requisite that penetration of the vagina should take place, the deposition of semen within the vulva being sufficient.

4th. The accumulated blood seems to be more favorably discharged by spontaneous openings than by operative procedure.

5th. An *error loci* may occur, the urethra taking the place of the vagina as a channel for copulation.

6th. An imperforate hymen cannot be regarded as a preventive of delivery.

These conclusions are based upon a series of clinical observations which place them beyond dispute.

THE TOPICAL ACTION OF REMEDIES (*The*

Practitioner, January, 1877).—Mr. G. R. Sasquet at the conclusion of a paper on the above subject sums up his results as follows:

1. A remedy applied to the surface of the body may be absorbed, and may then produce certain direct effects upon the tissues of the part. Probably the local effects of mercury and iodine are examples of this kind of action; perhaps, also, the pustulation of tartar emetic and croton oil is due to an eliminative irritation of the sudoriparous glands.

2. Paralysis of the terminal branches of the motor and sensory nerves and the arrest of secretion by belladonna may be explained by a direct action upon the nerve-fibre of the part.

3. Hyperæmia, inflammation, and all the more complex perversions of nutrition produced at the seat of application by remedies, are due to reflex vaso-motor action, usually of the kind at present called inhibitory.

4. "Counter-irritation," and all the other secondary or distant effects of the local application of remedies, are due to reflex vaso-motor action, excited by the primary effect of the application and propagated by means of the nerves.

5. In some cases at least these secondary effects tend to reproduce in kind the impression primarily produced at the seat of application. According to the commonly received hypothesis of inhibition, we should expect this law to apply only to such instances as are mentioned above under No. 2, and not to such local results as are due to reflex vaso-motor action.

A New Theory of Whooping-Cough.—At the last sitting of the French Academy of Medicine, M. Guéneau de Mussy broached a new theory of the nature of whooping-cough. He considers it an exanthematous fever, the eruption taking place on the mucous membrane of larynx, trachea, and bronchi, causing tumefaction of bronchial ganglia. These ganglia compress and irritate the pneumogastric nerves, producing the characteristic convulsive cough. He assigns the persistence of the cough, after the *pyrexia* has subsided, to the continuance of the ganglionic engorgement. The vomiting that so often accompanies this disease is also assigned to this cause. He supports his theory by the fact that enlargement of the bronchi or ganglia from other causes also produces a convulsive cough analogous to that of pertussis.

Excision of the Elbow-Joint (*Boston Medical and Surgical Journal*, January 4, 1877).—Dr. H. A. Beach reports a collection of twenty-one cases of excision of the elbow-joint operated on at the Massachusetts General Hospital by Dr. R. M. Hodges during a period of ten years. The report is made for the purpose of showing the ultimate and excellent results of excision of the elbow when recovery takes place, and the advantages of a single straight incision in its performance. This method, largely avoiding the cross-cutting of any tissues, allows "the connection of the triceps extensor tendon, with the investing aponeurosis of the arm and forearm, to be preserved almost intact. An attachment for the muscle is thus retained which diminishes, to a certain extent, the loss of power following its unavoidable separation from the olecranon." Transverse incision of the integuments, even though the above-mentioned connection is maintained, is in itself prejudicial to the subsequent motions of the limb, if the wound does not unite by first intention, but cicatrizes by granulation, as it almost invariably does.

Another cardinal point in this operation is the preservation of the attachment of the brachialis anticus muscle. It is commonly stated that this muscle is inserted into the coronoid process. No method of demonstration better displays the absolute fact in regard to this anatomical point than excision of the elbow on the dead subject, which, without dissection, makes plain that the attachment is into the shaft of the ulna and *base* of the coronoid process, abundant room being left between the process and the tendon for the passage of the saw (which should always be started on this side of the bone) and the removal of this portion of the ulna. Experience shows that the extent of fracture permitting an attempt to save the limb by excision seldom reaches a degree which prevents the carrying out of these rules; and it rarely happens that so much of the radius requires removal as to cause any interference with the insertion of the biceps. The great muscles of extension and flexion are thus left in a comparatively undisturbed condition. The amount of bone excised decides to some extent the subsequent mobility. Excision of the articulating surfaces alone would probably in most cases be followed by an anchylosis. Regret might sometimes be felt at not having excised enough, but seldom at having removed too much. The sacrifice should always be at the expense of the humerus, since the limit for the ulna and radius is fixed, as has been stated, by the necessity of preserving the brachialis anticus and biceps muscles.

Of the excisions, fourteen were for injury; of these five terminated fatally, but in none of them was there any reason to think that amputation or expectant treatment would have been followed by any more favorable results. Four of the remaining operations were for disease, and three for deformity: one of the latter resulted fatally from secondary hemorrhage.

The treatment pursued can be briefly stated. The wound was invariably closed with sutures. The arm, after the operation, was placed upon a pillow and flexed at an angle of one hundred and thirty-five degrees, that being the position most comfortable for the patient. Local inflammation, abscesses, pain, etc., were met by active measures based on

general surgical principles. A generous diet was always allowed and encouraged. When the arm was in a state to permit of bandaging, an internal angular splint of tin, broader than usually adopted for fractures, and fitted, as regards length, for each individual case, was applied, and the patient allowed to get up and walk about, the wound being dressed without the removal of the splint.

The time spent in the hospital was not great: one patient remained seventeen weeks, the others an average of about nine weeks. When discharged, the splint was usually dispensed with, and a sling substituted. Passive motion was rarely practised beyond that which came from such use of the limb as patients could be persuaded to make, and a useful arm was seldom obtained before the end of a year from the time of excision.

In twenty-one cases where amputation must otherwise have been performed, this report exhibits fifteen arms preserved, several of them being useful to a remarkable degree, and all of them, except one, retaining motion of the elbow, forearm, hand, and fingers. These excellent results suggest the inquiry whether this operation is not deserving of a broader application. A successful excision always leaves an arm more serviceable than one in which anchylosis has taken place after a bad fracture unaccompanied by a wound. Professor Busch, of Bonn, has twice excised with success the entire joint, for irreducible dislocation of the head of the radius, both pronation and supination being regained. A measure which of itself, in civil practice, so seldom occasions a fatal result, would seem more than merely justifiable in this seemingly trivial but thoroughly disabling accident, in which reduction is often impossible, or, if possible, so rare to maintain.

Forcible Dilatation of the Sphincter Ani in the Treatment of Hemorrhoids (*The Clinic*, November 18, 1876).—Dr. Christofari, in his work on this subject, comes to the following conclusions. Contraction of the sphincter ani plays an important rôle in the production of hemorrhoids. This contraction is much more frequent in hemorrhoidal affections than most writers on the subject think. It produces the constipation and the acute pain which these patients suffer before and after defecation. It exists, too, without pain, and for this should be none the less considered as a cause productive of hemorrhoids. In removing the constriction the physician relieves the painful symptoms which it occasions, and at the same time may treat the diseased parts. The best method to employ is that of forcible dilatation. This proceeding, so simple and so harmless, has succeeded in a very great number of cases.

Sealing of Compound Fractures with the Compound Tincture of Benzoin (*The Medical Record*, January 13, 1877).—Mr. Bryant, of Guy's Hospital, has been treating fourteen consecutive cases of compound fracture by closing the wound as soon as possible after the accident with lint saturated with the compound tincture of benzoin. The results obtained have been almost uniformly satisfactory. In one case, where the injury was produced by the kick of a horse, the fracture was at the junction of the middle and lower third of the limb. A piece of bone projected through the lacerated wound, and there was much contusion. The dresser at once reduced the fracture, and closed the wound with several pieces of lint saturated with the compound tincture of benzoin, and then swung the limb upon suitable splints. No pain or constitutional disturbance followed. When the lint was removed (on the twenty-fifth day) the wound had completely healed and the fracture was united. Three other consecutive cases are given, in all of which good results followed. In the second case the dressing remained undisturbed for twenty-seven days, and on being removed the wound was healed and the bones were consolidated. About three weeks later he left the hospital with a good leg.

The third and fourth cases are much of the same character, in the one instance the dressing remaining in place twenty-six days, and in the other sixteen.

Primary Cancer of the Spleen (*Le Progrès Médical*, September 2, 1876).—Primary cancer of the spleen is a pathological rarity. There are very few unequivocal cases on record; but among them may perhaps be classed one that was brought before the Société Anatomique at its April session. The subject of the disease was a male, 51 years of age, with a history and some of the symptoms of cancer of the stomach. After death, however, the stomach and the whole intestinal tract were found to be healthy; but the spleen and lumbar glands were extensively diseased. The former organ measured eight inches in each direction, was of firm consistency and smooth surface; but on section it was found to be pervaded with firm yellowish-white nodules of cancer, which together far exceeded the amount of parenchyma remaining. Some of the nodules were breaking down in the centre. The lumbar glands were also infiltrated, and formed a lobulated mass around the abdominal aorta. The liver contained a few miliary nodules, and was adherent to the diaphragm, whilst a solitary cancerous nodule was present on the corresponding pleural layer. Other secondary growths were found in the sternum, ribs, and vertebræ. The authors of the communication, while acknowledging the rarity of primary splenic cancer, point out that the disease was more advanced in the spleen than in the lumbar glands,—the only other place in which it could be considered to have arisen; and they particularly insist upon the absolute freedom of the stomach and rectum from the disease. No mention is made, however, of

the microscopical characters of the growth,—an omission of considerable importance, since it is highly probable that it was of the nature of lymphadenoma, in which case the extensive implication of the spleen, as contrasted with the liver, and its association with the tumors, would not be so rare an event as the authors would have us believe.

EXTIRPATION OF THE LARYNX (*Boston Medical and Surgical Journal*, December 28, 1876).—Dr. Maas performed this operation in a case of cancer of the larynx of nine months' duration. Tracheotomy had been performed previously, owing to difficulty of respiration. The various steps of the operation were: incision on the median line exposing the larynx; section of the hyo-thyroid and hyo-epiglottidean ligaments after the larynx had been peeled out from its bed on each side by a periosteum elevator; next, separation from the œsophagus, and finally from the trachea close to the cricoid cartilage. The operation lasted one hour. The wound was plugged with cotton-wool. The patient rallied well from the operation, and on the ninth day was able to leave his bed, but on the twelfth day he had a chill, and died of pneumonia on the fourteenth day. The operation was performed at the residence of the patient. To prevent the flow of blood into the trachea, a footstool was placed under the patient's back, thus directing the flow of blood towards the head. A rubber tube was kept permanently in the œsophagus, for the purpose of feeding the patient, and caused no discomfort. The reporter states that this operation has been performed seven times, with three deaths.

MAISONNEUVE'S CAUSTIC ARROWS (*Proceedings of the Medical Society of the County of Kings, Brooklyn, N. Y.*).—Maisonneuve's caustic arrows consist of one part of chloride of zinc and three parts of flour made into a paste with water and dried in various shapes.

Dr. J. C. Hutchison thus summarizes his conclusions as to the place which they should occupy in surgery:

1. Zinc arrows should be used when the disease, especially if malignant, cannot be taken away entirely by the knife; more particularly if there is a fetid discharge from an open sore, with hemorrhage and pain, which is gradually wearing out the patient's strength, as in uterine and other cancers.

2. If the tumor has more width than thickness, involves the integument, is ulcerated upon the surface, is situated at the bottom of an old wound, and fixed as it were against the bones,—if, in a word, it is not possible to remove the disease without causing a considerable loss of integument,—then the caustic should be preferred.

3. In those patients who absolutely refuse extirpation by the knife, the use of caustic arrows is admissible, even though the skin is sound and the tumor movable and can be removed by the scalpel, so as to leave a wound whose edges can be more or less approximated.

4. When erysipelas, pyæmia, septicæmia, or puerperal fever is prevalent, especially in hospitals, operations should be done with caustic arrows in preference to the knife, in suitable cases.

5. Cauterization, practised as here described, is entitled to occupy a prominent place among our surgical resources.

ON THE INFLUENCE OF SALICYLIC ACID IN TYPHOID FEVER.—Mr. E. A. Snell gave a boy aged 14, who had typhoid fever, salicylic acid in ten-grain doses every four hours. On the twelfth day of the fever his temperature had risen to 103⅘° Fahr., and his pulse to 116; moreover, he was somewhat comatose, his tongue very dry and furred, in consequence of his parents having left off the medicine as he had had four liquid stools. The dose was increased to twelve grains every three hours, and his brandy to three ounces daily. On the following evening (*i.e.*, twenty-four hours after) his temperature had fallen to 101° Fahr., and his pulse to 104; tongue moist and cleaner. He also readily answered any questions put to him. The medicine was then given every four hours, and the boy convalesced.

In another case that presented all the symptoms of a severe attack of typhoid, this drug apparently cut it short.

MISCELLANY.

HYDROPHOBIC COWS.—The *Avenir des Landes* reports a fact which is very rare in the annals of veterinary surgery, and which has occurred at St. Columbie, in Switzerland. Last October several cows were bitten by a dog which was placed to guard them. The herd tied up the poor animal in its kennel, and shortly afterwards it died with complete paralysis of the lower extremities. On the 2d of November three of the cows refused their food. An abundant viscous and adherent saliva flowed from their lips, and at the end of six days they died with well-defined paraplegia. During the course of the disease they made no attempt to bite, nor showed any symptom of madness, except that the presence of a dog excited them to an extraordinary degree. In two months eleven cows died or were killed. The incubation of the disease was twenty-five to thirty days in the first eight, and fifty-six in the three latter.—*Medical Press and Circular.*

THE *Gazette des Hôpitaux* reports the case of a man whose pulse was only 21. The beats of the heart were regular, and, excepting a hydrocele, the man seemed well and jovial.—*Western Lancet.*

THE revised edition of the British Pharmacopœia is announced.

Not long since, the *New York Medical Record* contained certain editorial censures upon medical journals allowing the use of their columns for the advertisement of quack or proprietary medicines. We pointed out at the time that the *New York Record* was doing exactly what it was condemning, but acknowledged at the same time that the circumstances all indicated a lack of vigilance rather than of good intention on the part of the publishers of the *Record*. Subsequently we received a note from the publisher of the *Record* asking us to point out the offending advertisement. We did so, probably to the satisfaction of both publisher and editor, as we heard no more about the subject, either publicly or privately. We do not often look over advertising columns; but, so far as we have noticed, since that time until the present the *Medical Record* has been correct in its course. It is now our painful duty to call attention to the fact that one of the most prominent positions in the whole advertising sheet of No. 331 of the journal alluded to (March 10) is allotted to the puffing of an avowedly proprietary nostrum. If this be a case of inadvertency, it is gross carelessness, and the editor or publisher of the *Record*, according to our thinking, owes an apology to its subscribers, and a pledge of greater watchfulness in the future. This may seem a small matter to some; but the crevice in the dikes soon widens into a breach, and if the flood-tide of quackery once begins to sweep through the respectable medical press unobserved, general ruin and debauchery seem inevitable. In the present instance the matter is the more serious because in *New Remedies*, a journal published by the publishers of the *Record* and edited by a physician of the same standing as the editor of the *Record*, displayed homœopathic advertisements are set forth with all the resources of the printer's art. The animus on the part of the publishers evidently exists; and it becomes the editor of the *Record* to be vigilant, and the New York profession to aid him by a steady pressure of awakened public opinion in his effort to maintain the purity of its advertising columns.

Prof. Lister is talked of in London as the successor to Sir William Fergusson at King's College.

The new edition of the United States Dispensatory will be ready in a few days. Part I. has been revised by Dr. George B. Wood, Parts II. and III. by Dr. H. C. Wood,—in each case aided by Prof. Bridges, of the Philadelphia College of Pharmacy.

Dr. Lewis Edwardes, surgeon of H.M.S. *Volage*, died recently in ten minutes, from cyanide of potassium, taken by mistake.

The London *Lancet* records the case of Lady Smith, who died recently in England, lacking only a few weeks of being 104 years of age. She was the widow of a president of the Linnæan Society, but had never had children. She had enjoyed good health, except occasional attacks of gout, till within a few months of her death, which was produced by acute bronchitis.

Dr. Gurdon Buck, of New York, died of uræmic coma, after a lingering illness, March 6. He was born May 4, 1807. Although a bold and successful general surgeon, he will be chiefly remembered for the improvements which he has made in autoplastic surgery and in the treatment of fractures: probably above all other of his additions will be valued the block-and-pulley system of treating fractures of the thigh.

NOTES AND QUERIES.

Mr. Editor,—The writer hopes you will give the following explanation space in your "Notes and Queries," as you did the article referred to below.

Under the head of "Notes and Queries," in the *Medical Times*, page 168, January 6, 1877, occurs an article censuring a druggist for refusing a half-ounce of brandy to a lady who was in a fainting condition, because "liquor was not dispensed over the counter," and accusing the same druggist of selling four ounces of laudanum to an intoxicated person.

The writer of the above article demanded the brandy in "soda" water. The clerk declined to give it in that way, on account of a rule of the store forbidding the mixing of any kind of liquor with "soda" water. This rule did not prevent, nor did the clerk refuse, to dispense the brandy in plain water, the effect of which would not be impaired by so doing.

In no case has this druggist refused to dispense brandy over the counter (except in "soda" water) to a sick person when it is needed.

In regard to the other, the person who received the laudanum was *not* intoxicated, and the questions asked him satisfied the clerk that he intended to make a proper use of it.

Yours truly, Justice.

To the Editor of the Philadelphia Medical Times:

Dear Mr. Editor,—Knowing of your great zeal in regard to advanced medical education, I send you a copy of an advertisement I recently found scattered on the seats of an apartment in which a meeting of medical men had been held. It reads thus:

"Interlineal, Literal, and Free Translation of the Diploma of the Jefferson Medical College."

Price, 50 cents.

May this evidence of *real* progress comfort you in your unrewarded efforts to elevate our professional standard.

"Three Years."

March, 1877.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM FEBRUARY 25, 1877, TO MARCH 10, 1877, INCLUSIVE.

Bentley, E., Assistant-Surgeon.—To report to the commanding officer of the 16th Infantry, Custom House, New Orleans, La., for temporary duty with that regiment. S. O. 31, Department of the Gulf, February 20, 1877.

Byrne, C. B., Assistant-Surgeon.—Assigned to duty at Fort Duncan, Texas. S. O. 40, Department of Texas, March 2, 1877.

Paulding, H. O., Assistant-Surgeon.—Assigned to duty with battalion 2d Cavalry in the field. S. O. 24, c. s., Department of Dakota.

Brown, P. R., Assistant-Surgeon.—Assigned to duty with battalion 2d Cavalry in the field. S. O. 24, c. s., Department of Dakota.

Shannon, W. C., Assistant-Surgeon.—Relieved from duty at Fort Duncan, and assigned to temporary duty at Fort Clark, Texas. S. O. 40, c. s., Department of Texas.

PHILADELPHIA, MARCH 31, 1877.

ORIGINAL COMMUNICATIONS.

PHYSIOLOGICAL ACTION OF GELSEMIA AND GELSEMINIC ACID.

BY ISAAC OTT, M.D.

AS is known, Prof. Wormley, of Ohio, was the first to discover these bodies in the Gelsemium sempervirens. Lately, Sonnenschein and Robbins* have stated that the acid is like æsculin. In the *Philadelphia Medical Times* I published some experiments on the action of gelsemia, which contained no gelseminic acid. Since that time, Drs. Taylor, Berger, Ringer, Murral, and Burdon-Sanderson have also studied its action. As the literature is somewhat extensive, I will give a short account of the properties of this body as far as discovered.

Action on the Cerebrum.—As Bartholow has shown, the motor nerves and the muscles are not affected; so the seat of the difficulty—that is, want of voluntary movement—must be either in the sensory nerves, the sensory ganglia, the cerebral ganglia, or the motor ganglia. As to sensory ganglia and cerebral, there is in none of the cases collated (thirteen) any presence of unconsciousness, except that of asphyxia; and although patients say that the skin feels blunted in sensibility, it is not sufficient to prevent the motor ganglia from receiving impressions: hence the trouble must be in the cerebro-spinal motor ganglia.

Action on the Spinal Cord.—When fluid extract of gelsemium was given, or gelsemia, Bartholow observed no exaggeration of reflex action. Neither did it occur markedly in any of my experiments, except the first, where is noted "hyperæsthesia and convulsive movements." Taylor, however, noticed it frequently, and Berger compared them to those of strychnia. Ringer and Murral have also confirmed it. Taylor proved that these movements were spinal in origin. I also wish to suggest that one reason, perhaps, why Berger noticed the tetanus so markedly was that he used an aqueous extract of the root, which would dissolve more of the acid than of the alkaloid. As no observer has studied the action on the spinal cord with the more accurate means of the physiology of to-day, I made a few experiments with Tilden's fluid extract of gelsemium. The frog was suspended by a wire, after the arrangement of Prof. Bowditch, of Harvard. Then the metronome was arranged to beat seconds, and the time during which the foot remained in an aqueous solution containing a few drops of sulphuric acid was noted. Immediately after the foot was withdrawn it was immersed in water.

Exp. I.—Frog. Cerebrum ablated.

Time.	Sec.	
P.M.		
2.40	7	
2.41		Fld. ext. gelsem., gtt. 3.
2.45	5	
2.54	3	
2.58	4	
3.06	4	
3.10	4	
3.17	5	
3.21	4	
3.32	4	
3.54	8	
4.12		3 gtt. gelsem.
4.17	18	
4.18	24	
4.19		Medulla severed.
4.29	16	
4.31	12	Heart-beat 24 per minute.

The gelsemia, like that used in the experiments of my previous paper, was free from gelseminic acid, the proof of which is given farther on.

Exp. II.—Frog. Received a grain of gelsemia subcutaneously at 4.20 P.M. 5 P.M., hyperæsthesia, which continues: no preliminary paralysis observed. 7 P.M., hyperæsthesia very great; losing power over posterior extremities; croaks when touched. 8.14 P.M., losing power over the extremities; lies with them extended; makes struggling movements occasionally; twitching of muscles; makes convulsive movements, and croaks, when touched; respirations now and then. Next morning lies in a paralytic state; makes convulsive movements when pinched; respirations now and then; recovers.

As is seen after the extract of gelsemium, and the alkaloid which was proved to be free from gelseminic acid, there is a rise succeeded by a fall of reflex excitability. To discover if the centres of Setschenow were affected, either by their excitation, causing a decrease of reflex activity, or their paralysis, causing an increase, the

* Berichte des Deutsch. Ges., Sept. 1876.

action of this drug was studied in relation to its action on the spinal cord separated from the medulla.

Exp. III.—Frog. Medulla severed.

Time. P.M.	Sec.	
4.50	4	
4.51		Fld. ext. gelsem., gtt. 3.
4.53	3	
5.05	3	
5.07	2	
5.14	4	
5.20	4	
5.21		Fld. ext. gelsem., gtt. 3.
5.32	6	
5.45	6	Heart-beat 20 per minute.

The spinal rise and fall of reflex excitability happens just as when Setschenow's centres were present. Consequently, this action is wholly spinal, as Taylor discovered.

Neither the hemorrhage from the division of the medulla nor the decrease of the heart-beat to twenty per minute will indirectly cause this, as Weil has shown by his very accurate experiments with digitalis.

Action on the Motor Nerves.—Bartholow proved that it had no action on the motor nerves, which I, in common with the subsequent observers, except Berger, have confirmed. Berger thinks that their irritability is reduced.

Action on the Muscles.—Bartholow proved that the muscles were not affected, which is concurred in by the other observers, except Berger, who thinks that there is a reduction of irritability. It is quite true that locally applied to the muscle it may have such an effect, but through the circulatory medium it must be small. The flaccidity of the muscles observed after poisoning is due to the weakness of the motor ganglia, the tonus of muscles being partly dependent on the activity of reflex power.

Action on the Sensory Nerves.—Bartholow found that the sensory nerves were not affected. This has been confirmed.

Action on the Heart.—Bartholow, Ringer, Murral, and Burdon-Sanderson have stated that it has no action on the heart; but I have shown by more accurate researches that in large doses it reduces the frequency of the heart-beat by an action probably on the excito-motor ganglia. Taylor and Berger have also noticed a small reduction after large doses. While small doses or therapeutic doses may not have this effect, there is no doubt that large doses do.

Action on the Pneumogastrics.—Like the motor nerves, I have shown that there is no action on the cardio-inhibitory nerves.

Action on the Vaso-Motor Centres.—I have shown that the blood-pressure by large doses is reduced, which fact Berger, working in Heidenhain's laboratory, has confirmed. Sanderson, Ringer, and Murral have not obtained such a result, because they only made one accurate kymographic observation with small doses. I also demonstrated that although the centre responded to direct irritation, yet I believed that its tonus was reduced as well as that of the heart, thus causing decreased arterial tension.

Action on the Nervus Depressor.—I have shown that its functions are not interfered with.

Action on the Respiratory Apparatus.—Bartholow found that it reduced the respiratory frequency, and I stated that the pneumogastrics did not participate in this action. Berger believes that they do; but Burdon-Sanderson has confirmed my experiments.

Action on the Temperature.—Bartholow has shown that it reduces the heat of the body, which I have confirmed. Ringer and Murral state that it does not affect the temperature.

Action on Man.—In an analysis of thirteen cases, I find that the action on man is as follows: disordered double vision, ptosis, want of co-ordination in the movements, disagreeable feeling in the head, great muscular relaxation, drooping of lower jaw, tongue stiff, sensation blunted, pupils dilated, respiration slow, irregular, pulse slow, feeble, surface cold and congested, unconsciousness, and death by asphyxia.

Ringer and Murral have shown that during the diplopia the images of the objects at first in the upper part of field of vision are at different heights, although actually in the same plane. Afterwards the lower part of field of vision is affected. They also showed that in lower animals it produces prominence of the eyeballs.

Bartholow stated that it paralyzed the third pair, and Ringer and Murral have confirmed this view, stating that it affects the periphery of the nerve before the trunk. Ringer and Murral think that it affects the

sixth nerve before the third, for the external rectus is the first muscle weakened. Locally it contracts the pupil, according to Ringer and Murral, and they state that internally it contracts and then dilates.

ARTIFICIAL RESPIRATION.—Berger has shown that artificial respiration will save animals, a fact confirmed by Ringer and Murral. Ringer and Murral believe that gelsemium is an antidote to strychnia; but Bartholow controverts this opinion.

ACTION OF GELSEMINIC ACID.

I have made some experiments with gelseminic acid, and compared its action with that of the alkaloid gelsemia. That I might be sure of their absolute purity, I submitted my specimens to Dr. McIntire, formerly Professor of Chemistry in Lafayette College. His report is as follows:

	Gelseminic acid prepared by him.	Gelsemia prepared by Messrs. Hance Bros. & White.
Nitric acid.	Dissolves with a reddish-brown coloration of the particles to a yellow liquid.	Dissolves with a greenish-bronze coloration to a yellowish-green liquid.
Add to the above solution ammonium hydrate, somewhat in excess.	Changes the liquid to a deep-red solution.	Forms a light-red precipitate in a clear liquid.
Solution of sodium hydrate.	Dissolves to a yellow liquid, and even on dilution shows a blue fluorescence.	No reaction.
Sulphuric acid.	Turns a greenish-bronze, heating dissolves it when the heat is very gentle, to a yellow-green color, changing rapidly to a purple when the heat is higher.	Turns brown, dissolving, on the application of heat, to a chocolate color.
Ammonium hydrate to this solution.	Discharges the color.	Changes it to a yellowish-green color.
Nitric acid added to the ammonium hydrate solution.	Changes the colorless liquid to a deep gamboge yellow.	Discharges the color.
Cerium oxidate and sulphuric acid.	Produces no change.	Gives a cherry-like color.

"These tests were all made on solid portions of the substance on approximately the same amount and at the same time, so that the mutual reactions could be compared. The above results show: 1. That the two substances are not identical, nor does either contain any of the other as an impurity. 2. That the reaction attributed by Dr. Wormley with the alkaloid and sulphuric acid (*Journal of Pharmacy*, xlii. p. 12) belongs to your specimen marked acid, exhibits the characteristic fluorescence, and cannot be the alkaloid."

I will add that the color of the acid was yellowish white, of the alkaloid a dirty yellow, that the acid under the microscope exhibited bundles of crystals like Fig. 1, Wormley, that when these crystals were dissolved in ether, and the ether spontaneously evaporated, they presented a fac-simile appearance to those figured by Wormley in Fig. 2.

I find that after an injection of half a grain or a grain of the substance subcutaneously in cold-blooded animals, there followed in all cases hyperæsthesia and tetanus in the course of fifteen minutes, preceded by some disposition to remain quiet, and apparent lessening of reflex excitability. The tetanus began in the posterior extremities and extended to the anterior. The respirations during this time were about twenty per minute, with considerable want of co-ordination in the movements. In about an hour voluntary movement returns, the anterior extremities lose their tetanic state, whilst the posterior extremities retain it till next morning, when there is still hyperæsthesia so great that he is elevated on the tip of his extremities, and croaks greatly when touched, On the third day the animal fully recovered.

The acid has other properties which will be more minutely detailed either by myself or some of my students, this being only a preliminary communication.

The conclusion is that gelsemium contains two bodies,—the acid always increasing and finally paralyzing reflex excitability; the alkaloid doing so in large doses, but not always; and that in tetanic properties the acid is much superior to the alkaloid.

PHYSIOLOGICAL LABORATORY OF THE UNIVERSITY OF PENNSYLVANIA.

LITHOTOMY.

BY A. P. CARR, M.D.

IN reading over the report of the Montgomery County Medical Society, my attention has been attracted to the remarks of Dr. Hiram Corson in relation to lithotomy. He says, "This is a world of knowledge and of skill in, and unheard of beyond, the small circles in which many an intelligent and skilled doctor moves." Then he adds, "I was forcibly reminded of this fact last year at our Pottsville meeting, when a physician from one of the mining districts

exhibited a large number (forty, I think) of calculi which he had extracted from the human bladder by nearly as many operations, and with only two deaths, both of which he attributed to the imprudence of the patients." And then he adds, "And yet we have not a written line on the subject."

It is certainly to be regretted that many of us are so negligent in reporting our cases as they occur. I have frequently been asked by members of the profession why I did not report them; but as "procrastination is the thief of time," together with a hard and laborious practice, I have deferred doing so, and had it not been that Dr. Corson's remarks call for them in detail, it is more than likely I would still be unheard from.

Before proceeding further, I desire to say that the doctor must have misunderstood me when he says there were two deaths, both of which I charged to the patient's imprudence. There was only one death which I could charge to imprudence, as will be shown by my article.

The following is an account of my experience in lithotomy. I made my first operation on September 8, 1861, and my last on October 2, 1876. During the fifteen years intervening between these dates I have had forty-five cases, or an average of three cases a year. I performed my first operation after the most singular manner and under the most peculiar and distressing circumstances. In fact, it was so novel in all its details that I cannot but think of the remark of Dr. Hiram Corson when he speaks of the country doctor. He says, "In cities or small towns, if a case shows alarming symptoms, aid is called in,—one, perhaps two physicians,—and the responsibility is so divided that it is not much felt or cared for by either of them. But the country doctor is expected to carry his cases through to a favorable termination, no matter what aspect they may assume." Then he adds, "How intensely does this stimulate him in his work!" This is as true a remark as was ever made; and, as a verification thereof, I will give you a short history of the case under consideration.

On the night of the 8th of September, 1861, I was sent for to visit a child two and one half years of age, who was suffering from convulsions. On my arrival at the house, which was, by the way, about half a mile from my office, I found that the child had not passed water for some two days. The urine was slowly dropping away, and the bladder was so large and tense that I was afraid it would rupture before I could relieve the child. I had to return home for a small catheter and some chloroform, and after I had returned I placed the child under the influence of the anæsthetic and introduced the catheter as far as the neck of the bladder, when it suddenly stopped, and, to my surprise, there was a stone lodged therein and packed so tightly that I was unable to push it back into the bladder. I did not know what to do under the circumstances. To puncture the bladder would do no good, for the foreign body was still impacted, and must be removed. It was late at night, and I was in a bad way. The idea suggested itself, If I only had a staff I would cut down and extract the stone; but, alas! I had none. I again conceived an idea. I withdrew my catheter, and with the rasp-blade of my pocket-knife I soon succeeded in cutting away enough of my catheter to make a staff. I placed the little patient in the position for lithotomy, hands and feet bound, and, with the assistance of father and mother, operated in the following manner. Point of staff resting on stone, the father held one of the child's knees with one hand, and the staff with the other, while the mother held the other knee; lamp on the end of the table. I made my incision in the usual way, and, after having divided the integuments and fasciæ for the proper distance, I performed most of the after-dissection with my finger and the handle of my scalpel. I then took hold of the staff and bulged it a little, and the father held it in its place reliably and firmly. I then entered the staff a little below the bulb, and carried my knife down to the stone. With the polypoid forceps from my pocket-case I tried to grasp it, but while trying to do so the stone receded and slipped into the bladder. I had not removed the staff at this time, so I carried it into the bladder and enlarged the opening in the urethra, then cautiously dilated it with my finger, which I succeeded in getting into the bladder and in contact with the stone. I then seized it with my polypoid forceps and removed it. The stone was a uric acid calculus, and weighed thirty-six grains; it was about half an inch in length, and shaped like a coffee-grain. I washed out the bladder with a syringe which I procured at the house. I applied some lard to the edges of the wound, and placed the child in bed. I think I gave him a dose of Godfrey's cordial, which I found at the house, and took my departure.

This child recovered without an untoward symptom, being completely watertight in about three weeks. He is now quite a fine boy, and I have the pleasure of seeing him occasionally and of congratulating myself upon seeing that I became a lithotomist without knowing it. I do not

intend giving a detailed history of all my cases, but merely a tabulated statement, with name, residence, nationality, age of patient, and kind and weight of calculus extracted; also a few remarks on preparatory treatment, my mode of operation, the kind of staff that I prefer, and the amount of mortality. I will, therefore, only mention the second case which I operated upon, and the results that followed. On the morning of July 2, 1862, I was walking up Centre Street of our town, when my attention was called by the proprietor of the Washington Hotel, Mr. James Wood, to a little boy about three years of age, who was lying on his back under a shade-tree, with a hold on his penis, and crying in a terrible manner. I went to his assistance, and from all rational signs concluded he had stone in the bladder. I took him home to his mother, who was a widow and wretchedly poor. She implored me to do something for the child, and I told her I would attend to him; she invoked the blessing of heaven on me, and I left. Then for the first time I prepared myself for lithotomy. I ordered some instruments from J. H. Gemrig, Philadelphia, and, with the assistance of Dr. George Brown, of Port Carbon, I operated on this boy with the greatest success, removing a uric acid calculus which weighed eighty-five grains. The boy made an excellent recovery in a short time. I think it was not more than ten days until he was quite well. He is still living with his mother, and in good health. His mother being an English lady, and having a great many friends who were constantly coming to visit the boy from different parts of the county, this operation got heralded about the county and out of the county, and I really got a reputation in this way as a lithotomist before I was fully prepared for it, and whenever there was a case of stone in the bladder, by some means or other they found me out, and I am now at liberty to say that, by the aid of Divine Providence, I was successful in every case but two, notwithstanding the difficulties which I was obliged to surmount in any of them. In 1867 I operated upon Rev. J. D. Jones, of Minersville, a man fifty-five years of age, and removed a large mulberry calculus. He got along very comfortably for, I think, about a week. I was called away to attend my father's funeral. I left my patient under the care of Dr. Beach, but he was a very eccentric man, and the doctor could not control him. He had an idea that the doctor was not treating him right; so one day he took a large dose of Seltzer aperient, which brought on hypercatharsis, and the old man was seized with a congestive chill while straining at stool: acute cystitis finally setting in, he died. I did not consider this any fault of the operation, and am satisfied that he died from his own imprudence. I also lost a child, four years of age, four days after the operation, from congestive chill. This was a weak child, and of strumous habits. He had frequent chills until he died. His parents said he was always sickly.

I will not undertake to laud my success in this particular branch of surgery, but will leave it to the profession to say whether or not this is a good showing. I never had much trouble from hemorrhage in operating. If the artery of the bulb happen to arise from the pudic opposite the tuber ischii, or if the inferior hemorrhoidal arteries be larger than usual, these vessels crossing the line of incision will be divided. If the superior lateral incision be made too deeply at its fore part, the artery of the bulb, even when in its usual place, will be wounded; and if the deep lateral incision be carried too far outwards, the trunk of the pudic artery will be severed. These facts should always be remembered. I have always found my finger to be the best sort of forceps for making compression when required, especially when it is made cold with ice-water and cooled as often as practicable. I am convinced that after having divided the integuments and perineal fasciæ with the scalpel, as little cutting as possible should be done. I usually make my first incision long, and down below the anus, so as to have plenty of room for the free discharge of urine; then with my finger and the handle of my knife I tear rather than cut my way down to the bulbus urethræ. In this way I have, I am satisfied, saved myself much trouble from hemorrhage. After I have reached the bulbus urethræ I enter the staff with my knife, midway between the bulb and the prostate, and after I have made sufficient room I carry my finger into the groove of the staff (which should always be as large and the groove as wide as possible, as it materially assists in the introduction of the finger), and cautiously dilate until I have got my finger into the bladder. Then, if I find that the stone is very large, I carry a

long, slender, straight, probe-pointed bistoury along my finger, and divide the prostate; if not, I extract the calculus with a long slender forceps. I have then done little more than made a perineal wound. But, I hear some one say, are you not apt to get up palsy of the sphincter muscle by so forcibly dilating it and have incontinence of urine as the result? I answer, No; no more danger than there is in forcibly stretching the sphincter muscle of the rectum with both thumbs for the cure of fissure of the anus. You are far more apt to have urinary fistula from the too free use of your knife; and of the two evils I would choose the former, as in case of incontinence of urine, an accident which never happened in any of my cases, you can apply some mechanical appliance, while in urinary fistula your patient, ten to one, is a sufferer for life. Excluded from society, he drags out a miserable existence, a burden to himself and friends, as was the case with a boy who died in our town some years ago. The boy suffered in this way for many years as the result of a bungling operation. I think he had three or four fistulas, and suffered fearfully for many years, until he died of exhaustion. The placing and holding of the staff in the bladder is of the most vital importance. It should be well hooked under the pubic arch and retained in this position with a steady hand. The knife which I prefer is a small, slender scalpel, with the blade about two inches and a half in length, with a long, slender handle. The finger and the knife should always move together in the deep wound, and the rectum should be kept depressed. When the knife is once in the groove of the staff, I push it obliquely downwards and backwards until I make room for my finger, when I immediately begin my dilating process. My preparatory treatment varies according to circumstances. I usually give my patient a free dose of quinine prior to operating, so as to ward off congestive chill. I give a small dose of oil or some other mild laxative the previous evening, so as to unload the rectum. The hands and feet should be firmly bound together, and the shoulders elevated. The staff, as I said before, should be as large as possible, with a wide groove. You may easily introduce a large staff on a small child by simply dividing the meatus urinarius a little with a sharp pair of scissors. I have had two cases in which the rectum was wounded; but when this takes place I usually divide the sphincter ani muscle, and I have no further trouble. My object in dividing the sphincter muscle is to allow the feculent matter a free exit, so that it may not be forced through the wound and thereby impede its healing process. If the stone is very large, its extraction may be materially aided by placing the finger in the rectum and pressing gently upwards. I have found this to be the case in extracting a mulberry calculus, weighing six hundred and sixty grains, from a nine-year old boy.

I was assisted in a large majority of my operations by Drs. G. W. Brown, James S. Carpenter, deceased, —— Yocum, Sr., William T. Beach, John T. Carpenter, G. L. Regan, Livermore, Thompson, Sherman, and F. D. Smack. I have been obliged on a number of occasions to operate with the assistance of druggists, ministers of the gospel, and intelligent persons whom I could get most conveniently as assistants, many of the patients being so poor as to be unable to remunerate me, much less pay for proper assistance.

My after-treatment is regulated by the exigencies of each case. After the bladder is thoroughly washed out, I generally apply some unctuous substance to the lips of the wound, so as to prevent incrustation of the salts of the urine. I find nothing better as a tonic, if the patient is feeble, than iron and quinine,—muriated tincture of iron preferred, particularly if the urine has an alkaline reaction.

Besides the case already spoken of, I have had but one of acute cystitis. The subject was a young Englishman, from whom I removed a mulberry calculus weighing four hundred and forty-six grains. He made a good recovery. The bladder was washed daily with muriatic acid, vinum opii, and barley- or rice-water, as the urine was extremely alkaline. Treatment, antiphlogistic.

The bowels in every case should be kept in a soluble condition, and perfect cleanliness observed.

I would here remark that since the use of wells has been abolished, and their places supplied with pure mountain-water, this dread disease has been on the decrease. Some sixteen years ago, most of the towns around here were supplied with water from wells. The water was very impure, hard,

and full of chlorides: a small particle of nitrate of silver would instantly change it to a whitewash, so to speak. It also contained sulphurous acid and iron. The last two cases I had for operation were subjects who were constantly using this sort of water. That water has a great deal to do with the formation of stone I am fully convinced, particularly if there is a corresponding diathesis. As a verification of this fact, I may state that in the year 1862, when Peter F. Collins was building the Broad Mountain Railroad, there were several persons down from Scranton, Pittston, and that region, where the water was hard, and I had five cases of stone as the result. The patients were all children. The parents of the children kept boarding-houses along the line from New Castle to Girardville. The water which they used while here was pure mountain-water, but the children had contracted the disease before they came to this county.

The annexed tabulated statement will give you the cases in detail. I regret that many of the calculi I have been unable to retain, as the parents or friends would not give them up, and others have mouldered down to mere dust, breaking from the slightest cause.

In conclusion, I would say that while I may not have been quite as elaborate on this subject as I perhaps might have been, nevertheless what I have said is true in every particular, notwithstanding the efforts of some of my professional brethren in Schuylkill County to make it appear otherwise.

Tabulated Statement.

Name of Patient.	Residence.	Nationality.	Age.	Date of Operation.	Weight of Calculus.	Kind of Calculus.
Wm. Hede	Wadesville	Welsh	2 years	Sept. 8, 1861	36 grains	Uric acid.
Henry Brazer	St. Clair	English	3 "	July 10, 1862	85 "	"
John Fogarty	B. M. R. R.	Irish	11 "	May 10, "	100 "	"
Michal Leahy	"	"	9 "	June 7, "	27 "	"
George Gillroy	"	"	6½ "	Sept. 18, "		Not retained.
Pat Brennan	"	"	5 "	Oct. 1, "	26 "	"
Reuben Hay	"	English	9 "	April 12, "		Destroyed.
Thomas Grimes	Mahanoy	Irish	3 "	" 16, 1863	20 "	"
James McAndrew	W. Norwegian	"	3½ "	May 20, "		"
Patrick Mohan	New Castle	"	5 "	July 10, "		Not retained.
John Powels	"	English	4 "	" 17, "	72 "	Thorny.
Patrick Walsh	Ashland	Irish	5½ "	" 19, "		Destroyed.
Daniel Gallagher	Gordon	"	6 "	Sept. 2, "		Not retained.
Wm. Cleary	Windy Harbor	"	4½ "	" 11, "	81 "	Uric acid.
Robert Rooke	Mahanoy Township.	"	5½ "	April 19, 1864		Not retained.
Frank Cleary	Glen Carbon	"	5½ "	May 5, "	49 "	Uric acid.
John Curen	"	"	6 "	July 12, "		Destroyed.
Thos. Stinston	Silver Creek	"	4 "	Aug. 5, "		"
Wm. Beese	St. Clair	Welsh	4 "	Oct. 19, "	40 "	Uric acid.
John Cosgrove	Maizeville	Irish	3 "	Feb. 9, "	28 "	"
Martin Durkin	Delano	"	4½ "	May 10, 1865		Not retained.
Thos. Chelacomby	St. Clair	English	7½ "	July 3, "	65 "	Uric acid.
Wm. Ryan	Greenberry Valley	Irish	4½ "	Nov. 8, "		Not retained.
Wm. Chapman	Gilberton	English	5 "	Dec. 12, "		Destroyed.
Thos. S. Thomas	St. Clair	Welsh	4 "	" 29, "	30 "	Uric acid.
David Metz	Lost Creek	American	5 "	Not certain of date	50 "	"
Patrick Mulroy	Centralia	Irish	5 "	July 27, 1866	82 "	"
John McBreyarty	"	"	13 "	Aug. 15, "	465 "	Mulberry.
Geo. H. Harris	Girardville	English	7 "	" 21, "	70 "	"
Geo. Williams	Ashland	Welsh	8 "	Sept. 19, "	86 "	"
Thos. Chelacomby	St. Clair	English	8 "	Sept. 5, "	37 "	Second formation; uric acid.
Matthew Riley	Mt. Pleasant	Irish	5½ "	Oct. 16, "		Destroyed.
Joseph Kenny	Ashland	"	5 "	Aug. 9, "	86 "	Thorny.
Rev. Jno. D. Jones	Minersville	Welsh	55 "	Oct. 28, 1867	380 "	Mulberry.
John Clarke	Wadesville	Irish	6 "	Nov. 7, "	68 "	Uric acid.
James James	St. Clair	Welsh	4½ "	" 19, "	56 "	"
Thos. Walsh	Thomastown	Irish	3½ "	July 16, "	42 "	"
Thos. Leahey*	Mahanoy City	"	4 "	Oct. 13, 1871	310 "	Mulberry.
E. Sheperd	St. Clair	English	2½ "	" 19, "	25 "	Uric acid.
James Curry	Mahanoy Plane	Irish	4 "	Sept. 17, 1872	40 "	"
James McDonald	Rappahannock	"	8 "	" 29, 1873	53 "	"
James Brennan	Heckschersville	"	5 "	June 17, 1874	38 "	"
James O'Donald	St. Clair	"	9 "	Nov. 9, 1875	660 "	Mulberry.
Irvin Brown	North Manheim	American	4 "	Aug. 28, 1876	46 "	Uric acid.
James Lagar	St. Clair	English	19 "	Oct. 2, "	446 "	Mulberry.

* The boy Thomas Leahey, whom I operated upon October 13, 1871, had a second formation, and was taken to Philadelphia. I was unable to learn the result of the second operation, or the name of the hospital, but I think he was taken to the University of Pennsylvania.

St. Clair, Schuylkill Co., Pa.

ELECTRICAL PHENOMENA OCCURRING IN THE HEART.

BY B. F. LAUTENBACH, M.D.

IN making a series of experiments with Professor Schiff, recently, on the action of nicotine, we observed in a number of experiments (on dogs) that after the medulla oblongata had been destroyed at the calamus, movements of the diaphragm still continued, a circumstance which had previously been frequently observed, and which led to the conclusion that the "centre" of the phrenic nerve exists, at least in part, in the cervical portion of the spinal cord, and not wholly in the medulla oblongata. C. Rokitansky, Jr. (*Wiener Mediz. Jahrbücher*), gives tracings of these movements of the diaphragm.

On examining these movements critically, however, we found them to occur with, or immediately after, the pulsations of the heart, and were able to count the number of pulsations by merely observing the contractions of the diaphragm, though the heart did not touch this organ. When the left phrenicus was separated from the pericardium, the movements of the diaphragm ceased, but recurred when the nerve was placed in its normal position, continuing as long as the contractions of the heart continued; but when the heart's movements have almost or entirely ceased, the contractions of the diaphragm also cease. When now the nerve was brought in contact with the heart and then again removed, a contraction occurred, sometimes with the making, sometimes with the breaking, and sometimes with both the making and the breaking of the contact with the heart, thus corresponding to the effect of making or breaking the connection of a constant electric current.

Thinking that perhaps the current produced resulted from the nerve being brought in contact with the liquid covering the heart, a thin piece of oiled paper was placed between the nerve and the heart; but the contractions still occurred with every beat of the heart.

These contractions of the diaphragm usually occur a very short time after the beat of the heart, but at times this interval was so short that to our unaided senses it did not seem to exist.

Our experiments thus far have been made only on dogs, in whom these phenomena can best be observed after section of the medulla oblongata and of the retarding (*hemmenden*) fibres of the vagi (*i. e.*, the sympathico-vagi trunks), or, instead of the section of the latter, the functions of these fibres can be destroyed by means of atropine. This latter condition we found not to be indispensable, as the *heart-current* was manifest in unpoisoned dogs in whom the vagi had not been exposed.

PHYSIOLOGICAL LABORATORY OF GENEVA, February 12, 1877.

TRANSLATIONS.

PODOPHYLLIN IN THE TREATMENT OF HABITUAL CONSTIPATION.—Dr. Rousselet (*Le Mouvement Méd.*, 1877, p. 57; from *La Gaz. des Hôpitaux*) publishes an article on this subject. The ill success which has frequently attended the use of this remedy is attributed by Dr. R. to the employment of a poor preparation. He thinks the treatment should extend over two to three months, according to the duration of the constipation, in order to induce regular action of the bowels at a certain time of the day. Dr. R. begins with one pill of a centigramme (gr. $\frac{1}{6}$), increasing to two if necessary, and continuing the amount daily during fifteen days. He then gives it every other day for a week, then every three days, and so on, increasing the interval every week or so. Should irregularity again supervene, he recommences the daily dose, diminishing it again gradually as before. The best time for taking the pill is upon sitting down to dinner; and the patient should endeavor to get into the habit of going to stool just after breakfast.

PODOPHYLLIN IN HEMORRHOIDS.—A subsequent number of the *Gazette des Hôpitaux* contains a communication by Dr. Rivière, in which, after agreeing with Dr. Rousselet in his high estimate of the value of podophyllin in habitual constipation, he goes on to express surprise that the latter has said nothing about the virtues of this drug in hemorrhoids. The action of the drug is simply to cause a soft passage on every occasion. The result is remarkable, but only temporary. The treatment must be kept up for many months in order to gain any permanent benefit.

NERVE-STRETCHING.—Dr. Ferdinand Petersen communicates the following case (*Centralbl. f. Chirurgie*, 1876, No. 49).—

A blacksmith, while working, was struck on the right leg by a piece of steel, the fragment burying itself in the tissues. Considerable and persistent pain troubled the patient to such a degree that he insisted upon having an operation performed for the removal of the foreign body. Dr. Petersen found the painful spot to be situated in about the middle of the leg, on the inside, somewhat back of the tibia. He cut down upon it, and explored with needles in various directions, without finding the foreign body. The nerve which had been laid bare in the wound seemed very sensitive. Petersen isolated the nerve, took it up with a hook, and stretched both ends. The wound was then dressed: it healed nicely, leaving the patient without the pain of which he had complained, and able to walk about with comfort. The fragment of steel remained in the tissues, probably encapsuled. x.

Poisoning by Strychnia.—Dr. Lancereaux (*Le Mouvement Méd.*, 1877, p. 52) gives the history of a case of fatal strychnia-poisoning, which is in substance as follows. A drug clerk swallowed ten to fifteen centigrammes of strychnia. Half an hour later he was attacked by convulsions. He was taken to the hospital, where he received five subcutaneous injections of morphia, but suddenly succumbed during a convulsive attack. In spite of artificial respiration and flagellation, no movement of respiration could be aroused; death had occurred from syncope. Morphia alone was used: there was not time to employ anæsthetics by inhalation. The autopsy showed congestion of nearly all the organs, without any particular lesion in any one of them. Chemical analysis showed conclusively the presence of strychnia in the matters contained in the patient's stomach. x.

Influence of Traumatism upon the Development of Rheumatism.—Professor Verneuil, in a communication on this subject addressed to the Académie de Médecine, January 11, 1876, formulated the following conclusion: "It is certain that traumatism is capable of awakening the dormant rheumatic diathesis, and of developing its manifestations even in organs previously unaffected. It is even possible that in individuals who have never been attacked by the affection traumatism may bring it about for the first time." In confirmation of this assertion Dr. Terrillon gives (*Le Progrès Méd.*, No. 52, 1876) the case of a youth of fifteen, brought to the hospital suffering with periostitis of the tibia, in whom acute articular rheumatism accompanied by heart- and lung-complications developed itself almost immediately. A single case, of course, does not count for much; but Terrillon refers to another (*Archives Gén. de Méd.*, September, 1876), and calls upon observers to note similar cases in future. The influence of traumatism in developing latent alcoholism is well known; and there is reason to believe that observation will show a close connection of cause and effect between this condition and other affections. x.

Expulsion of Three Ascarides Lumbricoides by the Meatus Urinarius (*La France Médicale*, 1876, p. 107; from *Nuova Liguria Medica*).—A patient who had shown previous symptoms of worms was seized with severe pains in the ano-perineal region, with throbbing and weight, followed by the appearance of piles, to which he was subject. At the same time he experienced a sensation of titillation at the neck of the bladder, which soon changed to a burning feeling and extended along the urethra to the meatus. Debility, dejection, occasional headache, and disturbance of the intellectual faculties, particularly of the memory, were present. Temp. 102°, respiration 38, pulse 100. Rectal and vesical tenesmus. One day, when the patient was more inconvenienced than usual by these symptoms, he passed a lumbricoid ascaris eight centimetres (two and a half inches) in length by the urethra. Subsequently two other worms were voided, one of which was twelve centimetres (nearly four inches) in length. The treatment was tonic, with alkalies for the intestinal catarrh and urethral injections with decoction of male fern. It is supposed that these worms penetrated the bladder after leaving the small intestine, which had descended into the pelvic cavity and was interposed between the rectum and the bas-fond of the bladder. x.

Aquapuncture.—The editor of the *Canadian Journal of Medical Science* reports against this method. He could not decide which was the worst, warm or cold water. Each separate injection produced a violent, burning, stretching pain in the part, which lasted for three-quarters of an hour and was followed by no relief from the neuralgia.—*The Doctor.*

Dried eggs are used in the Bavarian army as an article of food.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MARCH 31, 1877.

EDITORIAL.

THE ANNUAL OVERFLOW.

SINCE the last editorial was written for these columns, some three hundred and twenty medical students have taken their degrees in Philadelphia. In New York the annual overflow has been not less abundant, and, as with us, has been accompanied with the usual flurry of speeches and dinners, flowers and trumpets. Of this multitude of Æsculapian babes but a proportion have sufficient knowledge to make safe practitioners, whilst a considerable minority have been born in a state of ignorance shading from twilight gloom to Cimmerian darkness.

We distinctly do not think that the respective faculties can be blamed for the inferiority of their graduates. As the *Record* puts it, "the shop [naturally] cares more for the number of the customers which it can serve than the quality of the goods which it can offer." If the people whose lives are sacrificed do not care, if the profession whose *personnel* is debauched and whose reputation is sapped is indifferent, why should seven men, *pro bono publico*, sacrifice not only their livelihood but also the reputation which still comes from large classes? It is neither just nor sensible to expect men to throw away at once money and honor. Reform must come from without; and a long step towards that reform would be the development of a healthy public opinion which should make professors feel that a large class bore with it a measure of disgrace, because it was the indication of a low standard, and which would put to shame the pride that now feeds on seeing the graduation-list swollen by medical fœtuses and premature births.

In a recent long editorial the *New York Medical Record* comes to the conclusion that in endowments is to be found the remedy for the existing evil. Much as we favor such endowments, we feel constrained to point out that the greatest munificence can only palliate the evil. So long as the laws and customs remain as at present, even if our chief schools were rendered entirely independent of their classes, the residuum of unendowed colleges would only be stimulated to reduce their standard and gain classes by selling, at the lowest possible cost in labor and acquirement, the right to practise.

In legislation is the only hope of cure. Each State may protect itself; and the action of the two States New York and Pennsylvania would produce a profound general impression. Suppose there was in this commonwealth a governmental board of the proper character examining all who desired to enter into practice: how long would either the Jefferson or the University maintain itself when it was noised about that a considerable proportion of its graduates were annually unable to pass the State board? What is true in Philadelphia is no less true in New York.

The *Record* thinks it hopeless to expect legacies, because medical colleges as institutions of learning are beyond the pale of public sympathy. This ought not to be true, but really is true as things are, because our medical colleges are not institutions of learning, but commercial enterprises,—marts where men sell the right to practise a profession supposed, at least, to be honorable and lucrative, and also a modicum of learning. Such being the case, neither charity nor public spirit calls any man to endow a "doctor-factory" any more than John Smith's store. Let, however, the medical profession persistently and conscientiously represent to the men of wealth the great need of a different state

of things, and friendly rivals to Johns Hopkins University will spring up all over the country. It is the fault of the profession, and especially of the faculties, and not that of the laity, that we have no endowments.

We doubt, indeed, whether the most successful faculties really want endowments, since their professors make even more than their salaries would be in a properly conducted endowed institution, and do far less work.

If the statements of the *Record* are correct, the College of Physicians and Surgeons in New York is a case in point. It sustains a nominal relation to Columbia College, an institution whose trustees yearly add many thousand dollars of saved income to their endowment fund. If the medical school were willing to make its connection an actual dependence, it is intimated that it might be made an actual department of the college. If this be correct, the present faculty and trustees of the medical college are throwing away a golden opportunity; and we trust that Columbia College may soon punish their temerity by setting in action a thoroughly prepared medical department.

The legislation which is to achieve any good in advancing the standard of medical education must of course be very judicious. Such a bill as that recently before the New York Legislature amounts to very little, since it is based upon the fallacy that an American medical diploma guarantees that its possessor has some fair amount of medical knowledge. The recent law of Alabama is far better, and, although not altogether satisfactory, will probably work well, and will certainly be an important experiment in determining the best practical way of meeting the evil. Without entering into details, suffice it to state that it divides all practitioners into regular and irregular, and requires the first to be examined by the government board in all branches of medicine, and the last in anatomy, physiology, chemistry, and the mechanism of labor. The examining board of each county is composed of the board of censors of the County Medical Society. There is also a general board, composed of the censors of the State Society. There is under such arrangement a possible danger of a local medical college capturing the general examining board and running it for their own purpose; for this and other obvious reasons all such bills as this should contain a clause rendering professors in colleges ineligible for examining boards. Again, the Alabama law forbids compensation of the examiners. This is a decided mistake. No man so poor that he cannot get twenty-five dollars to pay for a final examination; and unpaid labor is always in the long run a commercial mistake, when the object is not evidently charitable.*

The *University Herald*—published at Syracuse, New York—of March 12 indulged in a quiet but severe article referring to the College of Physicians and Surgeons of New York. A Mr. ——, it seems, after attending half a course of lectures at Syracuse, went to New York and graduated on one course of lectures in the school just spoken of. He, it appears, complied with none of the standard regulations, which require that the candidate "must have attended two full courses of lectures, must have studied medicine three years under the direction of a regular physician or surgeon, have attained the age of twenty-one," etc.

The oddity of this is not that the College of Physicians and Surgeons should have contravened these regulations, but that a medical man could be found in the year of our Lord 1877 who supposed that in any of our colleges these regulations were more than words, mere words,—the outward garment of respectability for appearance' sake.

* For the full text of the bill, see the Medical and Surgical Reporter, March 3.

We doubt whether there are a dozen doctors in Philadelphia who have the thoughtfulness and humanity to drive their horses without bearing-lines. It is hardly necessary to argue with any one who has knowledge of physiology upon the pathology of bearing-lines: the bearings of the subject are too plain. Although hard of heart and addicted to vivisection, we learn with gratification that the larger number of the leading practitioners of London have done away with this time-honored relic of barbarism.

It is stated that the Sublime Porte has addressed a note, through the President of the Swiss Confederation, to the various governments, requesting that the red crescent may be substituted in the Ottoman field-hospitals for the red cross.

LEADING ARTICLES.

THE FUNCTIONS OF THE NERVOUS SYSTEM.

NO. II.

In a previous leading article we discussed the function of the spinal cord and of the mesencephalon; to-day the cerebrum claims attention. For many years it has been known that removal of the cerebral masses means to the animal obliteration of the past; and experiments spoken of in our previous article appear to show that all consciousness, and all the mental functions properly so called, originate in the cerebrum. The results of experiments and the teachings of pathology long seemed to indicate that the different portions of the brain acted as a whole,—that there was no localization or differentiation of function. A rude shock was, however, given to this view by Broca's discovery of the localized lesion of aphasia; and subsequently Hughlings Jackson contended that the phenomena of partial convulsions prove that there are motor centres located in the convolutions of the brain. No experimental demonstration was, however, given until 1870. Various observers had found that mechanical irritation of the cerebral surfaces elicited no response; but in this year Fritsch and Hitzig discovered that the direct application of the galvanic current to certain regions of the cerebral surface was followed by definite and constant muscular movements in various portions of the body. In making these experiments two fine electrodes were placed close together on the brain so that the distance between them was only a fraction of an inch. These results have been confirmed by various observers, some of whom have employed the galvanic and others the faradaic current. There can be no doubt of the correctness of the general facts, however much opinions may vary as to the exact seat of the various regions and as to the immediate causes of the movements. The important point to be first settled is, Are the movements due to the excitement of nerve-centres in the cerebral convolutions, or are they produced in some other way? It has been proven by Dupuy, Carville and Duret, and others, that galvanic currents when applied in the manner practised to the surface of the brain are diffused through the mass. It must be borne in mind, however, that the laws of electrical conduction not only necessitate this diffusion, but that they also insure great feebleness in all the currents which radiate from the main one,—a feebleness which rapidly dies into nothingness as the routes become more and more divergent and consequently longer and longer.

It is contended by Brown-Séquard, Dupuy, and others, that the movements spoken of originate, not in cerebral convolutions, but in nerve-centres at the base of the brain reached by these wandering currents. It has been found that if the gray matter of the convolutions be removed, galvanic irritation of the white matter beneath still elicits the movements. This, however, does not justify the deduction, which has been made, that therefore the movements do not normally originate in the gray matter. Galvanic stimulation of a nerve below its centre habitually gives origin to the movements produced by that centre; and consequently, if the movements originate in the cerebral surface, we would *a priori* expect them to be produced by irritation of the white matter beneath.

Again, we have knowledge of the effects of irritation of the basal ganglia, and these do not correspond with the results of galvanization of the brain-surface. It is impossible to produce localized movements by the galvanization of the corpus striatum, of

the optic thalamus, or of the corpora quadrigemina. When to these data are added the facts—that galvanization of one portion of the cortex produces localized movements, whilst the same stimulus applied to other portions nearer to the basal ganglia than are the first fails to elicit response,—and that during anæsthetization there is a time when the function of the brain-surface is suspended although that of the basal ganglia is not, and when, consequently, galvanic irritation of the cerebral surface fails to elicit the usual contractions although galvanic irritation of the basal ganglia provokes movements as in the normal animal,—it seems to be most probable that there are local centres in the cerebrum which, directly or indirectly, preside over movements.

This conclusion is certainly being confirmed by pathological studies, cases cropping up in which localized lesions have produced localized symptoms.

There is one fact, however, which requires a suspension of judgment, as to the so-called motor centres of the cerebral convolutions being absolutely or simply motor centres. It has been found that artificial local lesions are followed by local palsies, corresponding to the results following galvanic irritation of the brain; but Hermann (*Pfluger's Archiv*, x. 77), Carville and Duret (*Arch. de Physiol.*, 1875), and other observers have shown that these paralyses are not permanent. The last-named observers also found that the recovery of motion was not owing to a substitution of the hemispheres, for when a right-sided palsy due to a left-sided injury of the cerebrum had been recovered from, the injury of the right side of the brain produced only a left-sided palsy, and was not followed by a return of the right-sided palsy.

It may be that these so-called centres in the cerebral convolutions are really centres of thought or of recognition of sensation, and that the movements and palsies produced by them are because certain acts have become associated with certain thoughts. That they are not the sole governing centres of the motions they are connected with seems to follow from the experiments already alluded to, as well as those of Golz, who found that when even the greater portion of the gray matter of one hemisphere was removed by washing with water, an almost complete recovery was possible.

CORRESPONDENCE.

New York, March 17, 1877.

To the Editor of the Phila. Medical Times:

DEAR SIR,—At the February meeting of the County Medical Society, a paper showing careful research and extended observation, on the subject of the relation of the urinary organs to puerperal diseases, was read by Dr. Wm. M. Chamberlain, one of the accoucheurs to Charity Hospital. Among the cases he described were erysipelatous, lymphangeitic, diphtheritic, and metastatic, urethritis, cystitis, or nephritis (or all three combined); the extent of the urinary tract involved varying, of course, in different instances. As a result of his observations, he made the statement that in deaths from puerperal causes the urinary organs are diseased in a larger proportion of cases than the uterus and its appendages. Out of twenty-one such deaths occurring consecutively at Charity Hospital, there were distinct lesions of the kidneys in nineteen, of the bladder in eight, and of the uterus in eleven cases, found at the autopsies. The condition of the blood in pregnant and puerperal women seems to directly predispose to trouble in the kidneys.

Prof. Fordyce Barker, after commending the paper very highly, spoke of the tendency in the profession to localize the lesions of puerperal fever, and said that he still held with the minority (a minority which, however, he thought was not as small as it used to be), that puerperal fever is a general, constitutional disease, without *special* anatomical lesions. But, nevertheless, we must not overlook the special local symptoms in any individual case, as had sometimes been done to the jeopardy of the patient's life. The local manifestations ought, as a rule, to be most carefully treated, as well as the general condition. He then went on to say that he wished to add one or two points from his clinical experience by way of supplement to Dr. Chamberlain's paper, but did not propose to discuss its views, except upon the single incidental point of the use of the catheter, in regard to the evils resulting from which the speaker had quoted some distinguished German authorities. There is, said he, a certain halo surrounding these high-sounding Teutonic names which inspires us with not a little reverence and awe; but, with all due respect to the authors mentioned, he was confident that the catheter ought to be used far more frequently than it is, and that any evils that might in particular instances attend its employment were overbalanced a hundred-fold by the good effects resulting therefrom. In this connection he related a very interesting case of secondary hemorrhage after labor, resulting from an over-distended bladder, in which, notwithstanding the fact that the patient had frequently passed small quantities of urine, he drew off nearly two

quarts with the catheter. Not infrequently, he said, he was called to see, in consultation, patients three or four weeks after confinement, who were suffering from great mental depression, feverishness, nausea (with or without actual vomiting), hypogastric pain and tenderness, and constant and most distressing vesical irritability, and yet who were found, on inquiry, to pass their urine in natural quantity. This condition, he had ascertained, was due to the decomposition of a small quantity of residual urine remaining in the bladder, and could be entirely relieved by the use of the catheter about three times in the twenty-four hours for a few days. He had never seen it alluded to by any author, and in his clinical lectures at Bellevue Hospital in 1865 he had given it the name of *puerperal ammonæmia*. The affection was, in fact, due to an excess of ammonia in the blood, resulting from retention and decomposition of urine in the bladder. He had met with it also sometimes in men, as well as in females not in the puerperal state. In some instances the lining membrane of the bladder was affected thereby to such an extent that the catheter, on being passed, would soon become completely choked up by flocculi of mucus.

In conclusion, Dr. Barker alluded to *peri-nephritis*, which Dr. Chamberlain had not touched upon, and which he had never seen referred to by any author as a puerperal lesion. He had met with it not only in epidemics of puerperal fever, but also sporadically, and he now described in detail three of the latter cases. All were severe, and one of them terminated fatally. This supplementary notice of puerperal ammonæmia and peri-nephritis, he trusted, would serve to make the admirable paper of the evening in a great measure complete.

After a few remarks by Dr. Mary Putnam Jacobi on various points which had been brought up, Dr. Chamberlain stated that his object had been simply to show that the symptoms connected with the urinary organs were not infrequently the leading or even sole factors in cases of puerperal fever, and that renal difficulty often remains long after all other symptoms have disappeared. As regards peri-nephritis, he had met with it in thirteen of his cases, but in none of them was it as severe as in the three related by Dr. Barker.

At the last meeting of the Neurological Society, March 5, "*The Pathology and Morbid Histology of Chronic Insanity*" was the subject of a paper by Dr. Edward C. Mann, late Medical Superintendent of the New York State Emigrant Insane Asylum. He spoke first of some of the general characteristics of chronic insanity, such as the want of symmetry in the two sides of the cranium, the shrivelled ear of the insane (*hæmatoma auris*), etc., and then went on to speak of the changes in the meninges of the brain and in the organ itself. He had not attempted, he said, to produce an exhaustive treatise on the subject, but simply wished on this occasion to announce some of his own personal observations. As a rule, he found the brain to be anæmic, atrophied, and indurated, at the autopsies he had made. The principal point to which he directed the attention of the Society was the deposits of lymphoid cells, and also of the red corpuscles of the blood, which he noticed to be very generally present. In their causation, he said, there were two factors prominent: 1, the undue preponderance of white blood-corpuscles, impeding the circulation to a great extent; 2, the consequent dilatation of the vessels.

These conditions were favorable to the escape of corpuscles and the formation of these deposits; to which he regarded the induration and, later, the disintegration of tissue so frequently noticed as due. He was of the opinion that this might throw some light on tuberculosis in certain cases; for he considered tuberculosis and insanity as correlative diseases, and often mutually convertible. So, also, different forms of skin-disease he thought correlative to insanity. He reported in detail several cases of dementia with paresis, in which the autopsies revealed lymphoid deposits, pigmented cortical corpuscles, and thickening and tortuosity of the arteries; the latter being due to the continued hyperæmia occasioned by the general obstruction of the capillaries. At the conclusion of the paper Dr. Mann exhibited a number of very fine micro-photographs, illustrating the various points upon which he had been treating.

Dr. Hammond inquired if he had met with hallucinations in connection with derangement of the senses of sight and hearing, and related a case of this character in which a small clot was found in the optic thalamus after death. Dr. Mann replied in the negative.

Dr. John C. Peters, the President of the Society, then related the case of a lady who was totally blind for sixteen years before death, with pigmented and atrophied retina, who at times had the most extraordinary hallucinations of sight (though none of sound), which rendered her really insane for the time being. The attacks were preceded by pain and irritation about the eyes, and he had supposed that the seat of the trouble was to be referred to the tubercula quadrigemina. No post-mortem examination was permitted in the case.

Dr. Spitzka took exception to the writer's regarding pigmentation of cortical cerebral cells as characteristic of the chronically insane; for this, he said, was frequently met with in perfectly sane and healthy persons, and sometimes was very extensive in those who had suffered from malaria, the mind being totally unaffected. The induration and twisting of the blood-vessels which Dr. Mann had

also described as characteristic of chronic insanity he considered altogether normal, or at least very common, in those over twenty years of age,—believing it to be the result of the various hyperæmias to which almost every one is subject from time to time. He differed from Drs. Hammond and Peters in locating the lesions producing hallucinations in the optic thalami and tubercula quadrigemina; neither of which he considered registrating tracts. The hallucinations, he thought, really proceeded from the posterior lobes of the brain, and implied only functional derangement.

Dr. Samuel A. Raborg, at the last meeting of the Medico-Legal Society, made a forcible plea for the separation of the departments of Charity and Correction in this city, and showed some of the evils and abuses which arise from the present system of associating the deserving poor with the criminal classes. The poor, he thought, ought to be under the charge of a commissioner of charities, whose appointment should be taken out of the domain of politics, and who should have the assistance of an advisory committee composed of the best and most philanthropic citizens; while all criminals should be given over to the heads of the police department.

The principal event of the last meeting of the Public Health Association was the reading of an interesting paper by Charles Barnard, Esq., on "*Provident Dispensaries*," in which he spoke particularly of those of Manchester and Salford, in England. There these institutions had from eighteen to twenty thousand members, and the attendance at the free dispensaries had decreased forty per cent. in consequence. Afterwards a committee was appointed for the purpose of considering the feasibilityof organizing a provident dispensary here.

Dr. Knapp has recently reported, at the Academy of Medicine, two hundred cataract-extractions made according to the Von Graefe method.

At the Medical Journal Association, Prof. Fessenden N. Otis has read a paper on *chancroid*, in which he contended that there was nothing specific about the venereal ulcer, its peculiar character being due to the special irritation incident to the circumstances under which it was contracted, and that its severity was proportionate to the amount of this irritation.

The annual horde of newly-fledged M.D.s has once more been let loose upon the community from the medical schools here. Bellevue Commencement occurred at the Academy of Music, February 21. There were one hundred and forty-seven graduates. Elisha D. Leffingwell, of New York, was the valedictorian, and the address was delivered by President McCosh, of Princeton College. The University Commencement was held at the same place on the preceding evening, when one hundred and fifty-seven medical diplomas were given out, and the address to the graduates was made by Bishop Quintard, of Tennessee. The class valedictorian was Albert G. Paine. The Commencement of the College of Physicians and Surgeons came off March 1, at Steinway Hall, and, as on each of the above occasions, the clerical profession was called upon for the address. This time it was Bishop Coxe, of Western New York. There were one hundred and eighteen graduates, and George A. Edwards, of New York, was the valedictorian.

It will be noticed that the University bore off the palm in point of numbers this year; and this is no doubt to be attributed, in part at least, to the superior attractiveness of its gorgeous new building. Dr. McCosh, and Dr. Paine, the University valedictorian, both advocated in their addresses the endowment of the medical colleges and the raising of the standard of medical education.

The Faculty and Alumni dinners have also passed off in their usual festive and exhilarating manner. The Bellevue Alumni prize was taken by Dr. Andrew R. Robinson, and the gold medal of the University Alumni by Dr. Ghislani Durant. The latter was given for the best résumé on the subject of Pulmonary Consumption, and was the third prize that Dr. Durant has taken. In 1861 he obtained the Valentine Mott gold medal at the University, and in 1871 the prize of the New York State Medical Society.

The Rev. Dr. Crosby, Chancellor of the University of New York, who is connected with the Wellesley College for Women, near Boston, and is one of the Vice-Presidents of Vassar College, has for some time been making arrangements to open the doors of the University to the fair sex and thus give them an opportunity to acquire the benefits of an advanced course of study upon equal terms with the young men. The faculty agree with him in his views in this respect, and at the February meeting of the Council the matter was broached and permission given to report a plan of operation. At their next meeting, which occurs in April, the matured plan will be submitted. The design is to give young women opportunity to study all the branches they may desire in law, medicine, science, or literature, and to give them as perfect facilities and as thorough instruction as is enjoyed by male students. It is proposed to use the same rooms for the young women; but they will attend at different hours.

The medical students of the University have recently had the unusual privilege of being present at the autopsy of a murdered Chinaman who lived for several hours after having his cranium terribly smashed up with a hatchet and a considerable portion of his brain thereby exposed, and also at that of the white whale (or Beluga dolphin) which died at the aquarium, of double pneumonia.

The annual meeting of the Directors of the Nursery and Child's Hospital, the institution

for whose benefit the grand charity ball is given every winter, was held early in March, when it was announced that 1190 inmates were cared for at the country branch on Staten Island, and 1043 at the city nursery, during the year. The report states that it has been found necessary to give up the recent extension of care to "street cases," or pauper women taken in labor on the street. There is no hospital for receiving such cases in the city at present, and they are compelled to wait for transfer to Blackwell's Island; but the nursery wards are filled to overflowing, and the attending of street cases, undertaken at the urgent instance of the Commissioners of Charities and Correction, is therefore necessarily withdrawn.

Miss Dancer, the daughter of a noted gambler of great wealth, recently died and left $335,000 to the different charities of the city, quite a large share of the sum being received by hospitals, dispensaries, and other medical institutions.

The only alarming epidemic that seems to be prevalent in New York just now is the blue-glass mania, and in view of its rapid spread one of the morning papers appropriately asks, Why not build large conservatories of the glass and put the doomed Spitz dogs of the country within them? This would have a double advantage: all the dogs would be cured of their madness, and might even be developed into innocent "blue Skyes;" and we should also dispose of the glass, which is otherwise likely to become such an intolerable nuisance.

The principal event of interest that has of late occurred in the medical world here has been the formal opening of the elegant new building of the New York Hospital, which took place last evening. It is on Fifteenth Street near Fifth Avenue, and cost an enormous sum of money. It is built of pressed brick trimmed with brown sandstone, and is one hundred and seventy-five feet long and seven stories in height. No pains or expense have been spared to have it as perfect in every respect as it is possible to construct such a building. The ceremonies of the opening last night were of a very simple character, consisting only of an address in Chickering Hall, which is near by, by Dr. Wm. H. Van Buren, and a visit to the various departments of the Hospital by the audience afterwards. In the course of his remarks the speaker said he would rather be sent into one of the private wards of the New York Hospital for treatment, in case of a serious accident, than be received into the most luxurious mansion on Fifth Avenue. Everything about the new building certainly opens *couleur de rose;* but the proof of the pudding is in the eating.

It is not long since the obstetricians of Charity Hospital were boasting about the immunity of their wards from puerperal fever, on account of the extraordinary precautions which they took to avoid it; but now, according to all accounts, they "have got it bad" there.

Dr. Daniel H. Kitchen, who for the last two years and a half has been Chief of Staff at Charity Hospital, has resigned this position to accept that of Medical Director to the Inebriate Asylum at Binghamton.

Captain Lahrbusch, who served for many years under the Duke of Wellington, but has long been a resident of this city, has just celebrated his hundred-and-eleventh birthday, and until quite recently has preserved all his faculties perfectly, as well as an extraordinary degree of physical vigor.

The distinguished surgeon Gurdon Buck died on March 6, in his seventieth year, after a long and painful illness. His achievements are too well known in the profession everywhere to need any chronicling here.

PERTINAX.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JANUARY 11, 1877.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

Peanut-shell from the trachea. By Dr. J. SOLIS COHEN.

ONE-HALF of a peanut-shell, 1⅜ inch by ⅝ inch, was inhaled into the trachea of a working-man, 25 years of age, on Christmas-day, 1875, and was coughed up, entire and uninjured, February 15, 1876. During this period the patient had a good deal of cough, which was not supposed to have been due to the presence of a foreign body in the air-passage: indeed, the circumstance of the accident had been forgotten. He became considerably emaciated also, having lost forty-five pounds in weight.

After the spontaneous expulsion of the foreign body there was occasional cough and spitting of blood, especially after work (boiler-making) that required him to stoop. The patient was sent to Dr. Cohen (August 22, 1876) by Dr. B. H. Detwiler, of Williamsport, Pa., for examination to see if any ulceration could be detected in the trachea, but there was only evidence of general congestion. Treatment appropriate to the restraint of hemorrhage and relief of cough was instituted, and on January 4, 1876, Dr. Detwiler forwarded the specimen to Dr. Cohen, stating that the patient is well.

Coffee-bean from the external auditory meatus. By Dr. J. SOLIS COHEN.

This coffee-bean was removed a few years ago from the external auditory meatus of a young lady, who had carried it in that position for more than fifteen years, the only annoying symptoms being hardness of hearing,

which increased to deafness for that ear in damp weather, and was sometimes accompanied by severe neuralgic pains. The nervousness of the patient rendered the administration of an anæsthetic necessary in order to remove it with the curette. The specimen shows little change from its long sojourn. There were no permanent unfavorable results from it, the hearing becoming normal soon after its dislodgment.

Osteitis of the femur, showing ulcerations along the shaft and through the neck without injury to the articular cartilages of the hip-joint. By Dr. H. LENOX HODGE.

The girl from whom this specimen was removed was 15 years of age. She had always been delicate, and there was a family history of consumption. She began to complain of her hip in August, 1875, and was admitted to St. Joseph's Hospital in October, 1875. She remained there eight weeks, and upon leaving fell from a street passenger car, and the pain at once became worse. She was then admitted to the Presbyterian Hospital. She was extremely anæmic and weak. Her skin was almost perfectly colorless, and her pulse very rapid. She had hectic fever, with profuse perspirations. She died in March, 1876.

The neck of the femur is ulcerated through, and but little remains of the head, while the articular cartilage remains sound and is attached to the neck by the periosteum on the under surface. The articular cartilage on the acetabulum, and even the round ligament, was not diseased. The osteitis of the femur extended along the shaft for half the length of the bone, showing itself in softening and in many ulcerations upon the surface. There are also exostoses around the base of the great trochanter.

Carcinoma recurring in the vicinity of a cicatrix left after excision of true epithelioma in the axilla. By Dr. RICHARD A. CLEEMANN.

These two specimens are examples of different forms of epithelioma: they were removed from the same patient, the one with the counsel and assistance of Drs. D. Hayes Agnew and C. T. Hunter, on April 2, 1875, and the other, after an interval of twenty-one months, a week ago (January 3, 1877), by Dr. Agnew, aided by Dr. Hunter and myself. The growth, for the removal of which the first operation was performed, had been noticed for the first time four years before its excision. The patient, being then abroad, in Brussels, had consulted there a medical man, who had prescribed some application, which she was under the impression had removed the difficulty: after a while, however, she perceived the "lump" again, and for some months previous to the operation it had been growing more rapidly in size. At the time of its removal it was situated in the left axilla, rather to its anterior border, imbedded, as it were, in the skin and immediately subjacent tissue, rising above the surrounding surface, with its base extending beneath the whole mass nearly an inch in thickness; in contour it was generally circular, about one and a half inches in diameter, and felt of firm consistence; its surface was uneven, "bossilated," the skin covering it smooth and florid in color over a third of its extent, over the rest natural in appearance or merging into various degrees of the darker hue; in an angle of the little eminences, from a "crack," a small quantity of bloody-looking fluid exuded, which trickled over the side when the tumor was handled. There was an unpleasant tingling sensation occasionally complained of by the patient, but no positive pain in the growth. The sufferer is a lady, about 70 years of age, of delicate appearance, having been considered all her life as having "weak lungs;" but she is said to come of a long-lived stock, and seems to be possessed of strong vitality. The lower portion of the wound caused by the extirpation of the growth healed without difficulty or delay, but a slough formed in the cellular tissue beyond the upper part, which did not entirely separate until the beginning of the fourth week after excision; seven weeks more elapsed before the patient could declare herself as feeling in perfect health, with only a superficial linear ulcer in the flexure of the axilla remaining; this latter was three weeks longer in cicatrizing, making the whole period of recovery about three months.

Subsequently the patient enjoyed excellent health, but in April of last year, twelve months after the first operation, she observed another "lump" in the axilla. This I examined in the following June: it was then about the size of a hazel-nut, of stony hardness, round, and loose beneath the skin, not connected with the cicatrix left by the excision of the original tumor, but somewhat anterior to its upper part; six months afterwards the growth had reached the size of half a hen-egg, was still hard, and had become somewhat tender; it was situated just along and under the edge of the great pectoral muscle forming the anterior fold of the axilla. When this tumor was removed it was found to be composed of a half-dozen hard roundish bodies of varying sizes from that of a split pea up to that of a marble: these were so closely apposed to each other as to have seemed to constitute but a single mass; they resembled a "pleiad" of enlarged lymphatic glands. The adjacent border of the left mammary gland to which the growth extended was removed with the morbid tissue, and is easily recognized in the specimen.

Among the points of interest suggested by these specimens and their history, I will call attention to three. 1. The axilla is considered a rare location for epithelioma. Yet there is one factor recognized as playing an important part in the production of this growth, which might be expected to be present in this situation, a *repeated* or *constant irritation*, arising from the retained and therefore decomposing

secretion of the large sweat-glands. The thickness of the tumor and the unchanged appearance of the greater part of the skin covering it lead me to infer that the morbid process first invaded these appendages of the integument, and afterwards involved the surface. 2. The second growth removed was not in a line between the position of the first and the root of the neck, which is the course of the lymphatic having an anatomical relation to the primary seat of the disease, but was situated rather downwards and forward towards the mammary gland. Such a location suggests to me that the latter development was due to the rather wide-spread infiltration of tissue with morbid elements which may surround epitheliomata, a zone the extent of which our naked senses cannot justly estimate, since to the touch and unaided eye the adjacent structures appear perfectly normal. That a recurrence of the growth did not show itself in what would seem the natural direction was due perhaps to the sloughing which took place there. 3. Was the reputed disappearance of the tumor in the first instance an error of observation? I think the morbid mass may have decreased in size at that time, giving rise to the impression of cure, such diminution having been due to the resolution of a temporary inflammatory engorgement; for I have now under observation a tumor which I believe from history and gross appearances to be epithelioma, no opportunity having been afforded for microscopical examination, in which such a process has recurred; and the same is known to be true of other morbid growths.

Report of Committee on Morbid Growths, February 8, 1877.—"The specimen of morbid cutaneous new formation presented by Dr. Cleemann, and referred to the Committee on Morbid Growths, shows upon microscopical examination great enlargement of the papillæ, and the projection of pegs composed of epithelial cells into the subcutaneous cellular tissue; therefore, an epithelioma.

"The subcutaneous nodule also presented by Dr. Cleemann, upon microscopical examination exhibits in places collections of large irregularly shaped epithelial cells, placed in alveoli; the walls of the alveoli composed of dense fibrous tissue. Upon removing the cells by brushing a thin section, the alveolar arrangement of the fibrous tissue became quite evident. Lymphadenoid tissue is also seen in the section. Having such a structure, the new formation may be considered a carcinomatous infiltration of a lymphatic gland, variety scirrhus."

General tuberculosis of serous membranes.

J. N., colored, æt. 26, single, nativity Philadelphia, occupation laborer, was admitted to the medical wards of the Philadelphia Hospital, November 2, 1876. He has had chancres, but no history of any secondary symptoms.

When admitted, he complained of shortness of breath and a slight cough.

Pulse 110 per minute; some fever, but the temperature was not recorded. Upon examination a slight effusion was found in both pleural cavities; belly very tympanitic, and a small amount of effusion in the peritoneal cavity. Feet and legs œdematous. Patient had great pain in the abdomen, which was not much increased on pressure.

Urine passed was much less than normal in quantity, highly colored, and albuminous, containing hyaline and granular tube-casts.

The patient was placed upon jaborandi and infusion of digitalis, which seemed for a time to give some relief; but he soon grew worse, and died January 1, 1877, during the service of Dr. Wilson. The above history has been kindly furnished by Dr. Loder, resident physician in the Hospital.

Autopsy, thirty-six hours after death; slight rigor mortis; body not well nourished; brain and its membranes normal; heart and pericardium normal; no tubercular deposit in the lungs. The bronchial glands were much enlarged, and some of them had undergone a caseous degeneration. There was an extensive tubercular deposit over the whole of both pleural membranes, the membranes being very much thickened. The left pleural sac contained two pints, and the right one pint, of a straw-colored fluid. There were also extensive adhesions on both sides.

Liver about normal in size.

Spleen about normal in size, with a few points of deposit somewhat softened.

Kidneys were pale, and had the appearance of being fatty: the left contained a cyst about the size of a chestnut. The peritoneum was the seat of an extensive tubercular deposit both on the visceral and parietal layer. The peritoneal sac contained eight pints of a straw-colored fluid.

There were strong adhesions, some of which formed complete sacs, the largest one being on the right side.

The parietal layer of the peritoneum was so strongly adherent to the internal organs that it was torn loose with difficulty, especially from the liver and spleen. The intestines were matted together, and the omentum very much thickened.

Dr. Fred. P. Henry asked whether there was any inflammatory focus which could have been the starting-point of infection of the tuberculosis.

Dr. Loder replied that the man had had syphilis, and that there was enlargement of the lymphatic glands of the neck.

Dr. Henry inquired as to the condition of the mesenteric glands, and alluded to a specimen of peritoneal tuberculosis which he had presented to the Society about two years ago. The patient from whom it was taken had died in a state of collapse from the effect of a most intense colliquative diarrhœa, utterly uncon-

trollable by remedies. The visceral peritoneum was "shagreened" with miliary tubercles, but the mucous membrane of the whole intestinal tract was perfectly healthy. The mesenteric glands were greatly enlarged, especially at the lumbar attachment of the mesentery, where several of them were united into a tumor of about six inches' circumference. At the time of presenting the specimen, Dr. H. had suggested as the cause of the diarrhœa a sympathetic nerve-paralysis due to pressure by the glandular mass. This view is supported by the physiological experiments of Moreau, who found that section of this portion of the sympathetic was followed by profuse serous transudation into the intestine. In the case under consideration no mention is made of the condition of the mesenteric glands; presumably they were not enlarged; there was also no diarrhœa; which facts taken together furnish additional evidence in support of the theory of a paralyzing pressure as a cause of diarrhœa in these cases.

Dr. E. O. SHAKESPEARE, under whose direction the autopsy was made, said no lesions of the cerebral membranes or of the pericardium were observed. The large caseous mass which was at first thought to be a cheesy degeneration of the proper lung-substance was on careful inspection found to be an enormously enlarged lymphatic gland which had undergone a cheesy metamorphosis. It was situated just within the root of the lung, and was attached to and partly enveloped one of the large bronchi.

There was also a very large mass of glands at the back of the trachea, much enlarged, and in a state of cheesy degeneration, which had probably existed for some time. The *thymus* gland at the anterior part of the trachea was also much enlarged, being one and a half to two inches in thickness. Dr. S. was not prepared to speak positively of the theory of caseous inoculation; but, if it be necessary to apply it to this case, it may be said that any one of these seats may have been the focus of infection, although it is hard to say whether the glands were first involved or whether the inflammation extended from the pleura to the peribronchial glands. It is very easy to conceive that the disease had its origin in the abdomen, either in enlarged mesenteric glands or the omentum itself, which was thickened and seems longest to have been affected with the inflammatory state. It is also very easy to imagine an extension of the pathological process by means of the lymphatic connection existing between the peritoneal and pleural cavity, between the pleural cavity and the peribronchial glands, and between the diaphragm and the glands in the anterior and posterior mediastinal space. The apparent limitation of the lesions to the structures in the course of this lymphatic circulation would seem to give some plausibility to this side of the question.

REVIEWS AND BOOK NOTICES.

THE MICROSCOPIST. Third Edition, rewritten and greatly enlarged. By J. H. WYTHE, M.D. Philadelphia, Lindsay & Blakiston, 1877.

In its present condition this book is essentially different from its former self, and is, to our thinking, a very good book for the inexperienced microscopist. Its text is well written, concise, and comprehensive; but its especial value is to be found in the three hundred and five illustrations, whose scope embraces almost every class of subjects the amateur is likely to desire knowledge upon. Much less full than the Micrographical Dictionary, it may well serve as an introduction to that encyclopædia, and its comparatively trifling cost puts it within the range of those individuals whose real or imagined impecuniosity shuts them off from the great reservoir of microscopic information.

THE PRACTITIONER'S HAND-BOOK OF TREATMENT. By J. MILNER FOTHERGILL, M.D. Philadelphia, H. C. Lea, 1877.

This excellent and novel book is in a measure complementary to the work of Dr. Da Costa, as it certainly is complimentary to himself in its dedication. It is to the treatment of disease what the "Medical Diagnosis" of our great Philadelphia Professor is to the discovery of disease. It does not come at all into competition with the formal treatises upon materia medica and therapeutics, but is to be used as supplementary to them. It is not a book for the student, but for the practitioner who has already studied therapeutics from the ordinary stand-point of the individual drug.

Its 570 pages are distributed in twenty-four chapters, and, though dry reading, the enumeration of the subjects of these chapters gives in the briefest possible manner the scope of the work.

The list is—Introduction, Assimilation, Excretion, Body Heat and Fever, Inflammation, Anæmia and Plethora, Growth and Decay, Abnormal Growth, Blood-Poisons, Acute and Chronic Diseases, Diabetes, Rheumatism and Gout, Diatheses and Cachexia, Action and Inaction, Circulatory System, Respiratory System, Digestive System, Urinary System, Reproductive System, Cutaneous System, Lymphatic System, Nervous System, Public and Private Hygiene, Food in Health and Ill Health, The Medical Man at the Bedside. Under each subject the physiology and pathology, so far as they bear on treatment, are reviewed, then the action of remedies is considered, and finally is given their practical application, with formulæ.

The book being by its author, it is scarcely necessary to say aught in regard to its style. It is, however, allowable to state that it is one of the most attractively written of his works,

and, what is still more important, that it is a thorough digest and well-condensed putting forth of all of modern practice which has stood the test of the large experience of its author. Much of it is not merely fresh, but absolutely novel; and we cannot commend it too highly to every man who is well grounded in a scientific knowledge of drugs and their actions. Placed before this, it is the apex of a pyramid, beautifully wrought, but lying on the ground, useless and unsightly, for want of a base.

Whilst praising the book highly, we do not want to give the impression that everything in it accords with our own views; so long as men are mortal there will be differences of opinion; but Dr. Fothergill's work seems to represent as near as is possible the best general therapeusis of the age. We are sorry to see him trembling before the mercurial bogie, which has been shapened into such horrible misshape by various authorities.

It may be true that "life-long misery, a hyperæsthetic nervous system, erethism, defective teeth, and a whole host of evils, follow in the train of mercury when administered freely to children;" but in a good many thousand cases we have never seen any thing of the sort; and we believe that such assertions, especially when coupled with the statement that mercury is unsuited to other ailments of infancy than syphilis, do harm. In the chapter on diarrhœa the author makes no mention of the value of repeated minute doses of calomel in the form of diarrhœa clinically characterized by light-colored stools. In the cool climate of England this point may not be of much importance, but assuredly the practitioner who does not understand this use of mercury fights our summer diarrhœas with one hand tied.

A Practical Treatise on the Diseases of Children. By J. Forsyth Meigs, M.D., and William Pepper, M.D. Sixth Edition. Philadelphia, Lindsay & Blakiston, 1877.

This new edition of an old favorite is somewhat of an improvement upon its former self. The additions are not numerous, but care has been especially exercised upon the text. If there be any fault at all in this most satisfactory work, it is in a tendency to diffuseness; and we trust that the authors for the next half-century will continue to hammer at the wording, until it is as solid as that of the United States Dispensatory,—the fairest result of forty years' squeezing we know of.

An Atlas of Topographical Anatomy after Plane Sections of Frozen Bodies. By Wilhelm Braune. Translated by Edward Bellamy. Philadelphia, Lindsay & Blakiston.

This English book with a Philadelphia imprint is either a very large royal octavo or else a small quarto, and is a minified reproduction of the master-work of Prof. Braune, in which the plates are of life-size. It contains thirty-one plates, representing nearly all of those of the original work, and has forty-six wood-cuts in the text. It is a magnificent book, and a very valuable contribution to medical literature, but belongs rather to the luxuries than to the necessities of professional life. To the surgeon it must be a very useful companion, enabling him to answer anatomically questions much more rapidly than he can from the cadaver, and with comparative accuracy.

A Text-Book of Physiology. By M. Foster, M.A., M.D. London, Macmillan & Co., 1877.

A careful examination of this book has resulted in a verdict of "well done." There is a freshness about it which can only come from thorough acquaintance with physiology both from the laboratory and literary point of view. It represents the latest aspects of the subject, is well and clearly arranged and written, and for the student is almost, we are inclined to write absolutely, the best book in the language. In its 550 pages the practitioner may find most agreeably stated all that is firmly established in physiological science, and may get also fair views of the fields where the conflicts are still raging.

GLEANINGS FROM EXCHANGES.

Treatment of Rheumatic Fever and other Febrile Diseases by Salicin (*The Lancet*, January 20, 1877).—At a recent meeting of the Clinical Society of London, Dr. Hermann Weber read a paper founded on cases illustrating the treatment of rheumatic fever and some other febrile diseases by salicin and its congeners. The cases included fifteen of rheumatic fever, four of gonorrhœal rheumatism, two of acute gout, four of typhoid fever, two of ague, two of the hectic of phthisis, one of quinsy, and two of scarlet fever. Dr. Weber arrived at the following conclusions: 1. That salicin and its congeners are powerful antipyretics, equal to quinine, with the exception of the effects of the latter upon ague, against which they are comparatively powerless. 2. That they are of more general value in the treatment of rheumatic fever than any remedies hitherto tried, although they are not applicable in all cases, and thus not always able to prevent complications. 3. That their antipyretic influence may be usefully employed in other febrile diseases, such as typhoid fever, in combination with other modes of treatment, such as alcohol and bathing. 4. That their use is occasionally attended by accidental symptoms, some of these being unimportant, such as noises in the ears, various degrees of deafness, giddiness, nausea, abundant perspiration, and possibly a cutaneous eruption; while others are graver, such as vomiting after each dose, delirium, and

collapse, pointing to the necessity of caution and watchfulness, especially in states of heart-disease and exhaustion. 5. That there is no essential difference in the action of the three remedies mentioned, but that salicylate of sodium, being more soluble and more easily absorbed, exercises a more rapid effect, but requires to be given in somewhat larger doses than either salicin or salicylic acid; that of the two others, salicin is so far preferable in that its taste is less disagreeable and it is more soluble than salicylic acid, which in its undissolved condition seems to give rise to local irritation of the fauces and stomach.

Cure of Aneurism by Complete Temporary Pressure (*The Lancet*, January 20, 1877).—The *Lancet* comments editorially upon the method of treating aneurism which has only lately been introduced into practice, namely, the employment of complete temporary pressure by means of Esmarch's bandage. Three cases have been recorded. The aneurisms had existed three months, between four and five months, and three weeks, respectively. One is described as being as large as a hen's egg; another is compared in size to a small orange; the third is stated to have been "two inches long, filling the upper half of the space." The elastic bandage was applied firmly from the foot to the ham, then loosely over the ham, opposite the site of the aneurism, and again firmly to the thigh above. It was left on for fifty minutes in two cases, for an hour in the other. Afterwards the circulation in the limb was partially controlled by a compressor on the femoral artery for a few hours as a precautionary measure. As soon as the aneurism was examined after the removal of the elastic bandage, the tumor was felt to be firm and free from pulsation in each case, and then rapidly diminished in size. Such a remarkably successful result in three consecutive cases demands for this mode of treatment the careful consideration of all surgeons. Its advantages appear so great that if it prove to be safe and adapted for the majority of cases its adoption will soon become general. It is rapid in its action, easy of application, requires neither complicated apparatus nor a large staff of assistants, and may therefore be employed in private practice as easily as in hospitals. The period of its application being comparatively short, the administration of ether would be justifiable if the pain which is generally complained of after a short time prove unduly severe. Compression for an hour seems to be quite adequate to insure complete stasis in the aneurism, and it is well known that the lower limb may be kept bloodless for much longer periods than that without any bad results following.

Visceral Syphilis (*The Medical Press and Circular*, January 31, 1877).—At a recent meeting of the Pathological Society of London, Dr. Greenfield brought forward specimens taken from a series of *post-mortems* on twenty-two cases of syphilis. An analysis of these cases showed that of those who died from the direct effect of the disease, the majority were comparatively young. The causes of death in fifteen of these cases were of a syphilitic nature, viz., thrombosis of the cerebral arteries in five cases, thrombosis of the pulmonary artery in one, syphilitic disease of the larynx in two, lardaceous kidneys in three, gummata in the brain and dura mater in one, syphilitic stricture of the colon in one, hæmoptysis in slight phthisis one, and pyæmia one. Lardaceous degeneration of the viscera was absent in eighteen out of twenty-two cases, but in two cases it was extremely advanced in all the organs. In ten of the cases there were no marks of skin-eruptions or ulceration, in four there were several cicatrices on the legs, and in eight the skin was not thoroughly examined. But it was remarked that there was not the slightest evidence of skin-affections in those cases where the cerebral disease was most marked and extensive, and that where the skin was most affected there was little syphilitic infiltration of the internal viscera, lardaceous degeneration being alone present. Marked changes in the skin were observed in connection with changes in the larynx, rectum, and lungs; and in several cases there was marked atheroma of the aorta. In one specimen of syphilitic disease of the cerebral arteries, a small artery in the pia mater near a gumma in the brain presented the appearance of a whitish fibrous cord, and a section of it showed that the walls of the vessel were so thickened as to leave only a narrow channel. The outer coat was infiltrated with a cellular growth, the inner coat was remarkably thickened, while the middle coat was but little affected. The growth in the inner coat was found on closer examination to resemble a fully-developed gummatous growth, with capillaries of new formation running through it. In another specimen the thickening seemed to involve all the coats, although the inner coat may have been mainly involved. With regard to gummata, whose high degree of organization and sudden decadence are very remarkable, Dr. Greenfield thought that their degeneration was due to partial occlusion of the small arteries by proliferation of their endothelium.

Castration in Spermatorrhœa (*Detroit Medical Journal*, January, 1877).—Dr. F. H. Spalding reports the case of a boy, æt. 14, who had been a persistent and excessive masturbator since infancy, and whose mind became so affected that it was necessary to send him to a lunatic-asylum. All other means having been unsuccessfully tried, castration was at last advised as a *dernier ressort*, and was performed. A change in the mental condition was almost immediate, the child's health improved, and two years later he was competent to earn his own livelihood.

Case of Hypospadias cured by Operation (*Virginia Medical Monthly*, February, 1877).—Dr. T. B. Wilkerson reports the case of a man, æt. 26, who consulted him in reference to a condition of hypospadias.

After a careful examination of the penis, two minute orifices could be detected, one at the natural outlet of the canal, the other about half an inch back of the corona glandis,—a slit-like cleft in the under portion of the organ, with everted edges. It required a patient effort of nearly ten minutes to introduce the smallest-sized pocket probe into either one of these orifices. There was considerable morbid excitability about the parts, and the manipulatory efforts brought on frequent spasms of the bladder. As soon as voluntary effort at urination was made, the penis would erect itself, completely closing the minute orifices so that not a drop of urine could escape; but when the attention of the patient was directed to other matters, a discharge of urine commenced to flow guttatim.

The patient being under the influence of chloroform, a small grooved probe, about the size of an ordinary sewing-needle, was passed into the meatus, through the constricted portion of the urethra, extending about an inch in length. A narrow-bladed bistoury was then passed down the groove of the probe, and the urethra was divided upwards towards the dorsum of the penis, the incision being made large enough to admit a No. 11 catheter. The probe and knife were then removed, and a silver catheter was passed into the bladder, which was allowed to remain in ten minutes and was then withdrawn. The urethra was cleared of all blood by the use of the syringe. The catheter was then repassed and secured in the bladder. A silver probe of the smallest size, having been dipped into strong nitric acid, was passed through the fistulous tract on the under surface of the penis, completely cauterizing its surface and the everted edges. The fistula was then accurately closed by a small piece of tissue-paper saturated in collodion, and an extra layer of collodion was put on after the first had dried. The catheter remained in the bladder four days, when it was removed and introduced every morning for two weeks.

The fistulous orifice closed entirely. The patient has had no trouble in passing a full stream of water. There has been no recontraction of the urethra; and the cure now, after the lapse of ten months, seems complete.

Case of Vesical Calculus and Medullary Cancer of the Prostate (*The St. Louis Medical and Surgical Journal*, January, 1877).—Dr. S. H. Gray, of West Meriden, Conn., reports at length a case of great interest both from its rarity and from its serving as an illustration of homœopathic surgery. Briefly stated, the facts are as follows. A man, æt. 36, complaining of incontinence of urine, irritable bladder, etc., consulted a homœopath, who endeavored to pass a catheter, and, as the autopsy finally showed, succeeded in thrusting it through the floor of the urethra into the centre of the prostate, which was softened and breaking down through cancerous disease. Subsequently an extensive internal urethrotomy was made by the same operator. After this diarrhœa commenced and became continuous, involuntary evacuation occurred frequently, and for three weeks the urine ceased entirely to appear at the orifice of the urethra. This state of things was pronounced by the homœopath to be very favorable, as "it gave the bladder a rest." The subsequent progress of the case was somewhat variable, but death finally resulted from uræmia. The autopsy disclosed a large medullary cancer of the prostate, a very small bladder with thickened disorganized walls tightly contracted over a vesical calculus weighing one ounce, a sac formed by the cellular tissue in the neighborhood of the cancer and containing two or three quarts of urine, and a large false passage extending from the floor of the urethra into this sac.

Peritonitis in Children (*The Boston Medical and Surgical Journal*, February 1, 1877).—Dr. D. H. Hayden gives the following abstract of the views of S. Kersch in reference to peritonitis in children:

In this disease, which is often extremely difficult of diagnosis, the author calls attention to two symptoms which are quite characteristic of the disease. In the first place there is the impossibility of lying with the legs stretched out, the patient having both thighs flexed upon the abdomen, and, consequently, he cannot be made to stand on his feet. The second important aid to diagnosis is the respiration. Even before a peritoneal exudation is demonstrable, sharp pains, which arise in both hypochondria, make inspiration very difficult, and should there coexist a bronchial catarrh, coughing is impossible. Expiration goes on, unimpeded. Such children can cry quite loud; but the pauses between the cries are long, being filled out by a series of very short inspiratory acts. This difference between inspiration and expiration during crying is the most important diagnostic symptom in the peritonitis of children, and is never absent.

The prognosis is less unfavorable than with adults. Although a subsequent cheesy infiltration of the lungs is to be feared, yet this process with young children has not the same serious significance as with older persons. In such cases, when the child receives proper care and treatment, cicatrization or calcification of the infiltration often takes place. In forming the prognosis the author's many years' experience has demonstrated that the sex of the patient must be taken into consideration, as with little girls sterility remains behind notwithstanding they may otherwise be restored to perfect health. The author has

observed ten such cases between five and fourteen years of age.

The author's treatment consists in quinine, as many grains as the child is years old, once or twice daily, and the application of leeches followed by cold-water dressings, which must be rapidly changed, applying over these dressings a piece of gutta-percha paper to protect the bedclothes. Morphine is also employed, symptomatically.

There sometimes takes place so large an exudation in the abdominal cavity as to require the use of the trocar; and one must not wait too long before employing this instrument, as from the long continuation of such a collection of fluid œdema of the lower extremities is apt to ensue, and by pressure on the large abdominal vessels a new exudation is excited. In these cases, too, the strongest diaphoretics or diuretics are powerless until the larger portion of the fluid has been evacuated. The author recommends that the wound be left open for a time, otherwise a second puncture is often necessary. Several punctures are sometimes required, and recovery, notwithstanding, takes place.

MISCELLANY.

Washing out the Stomach.—Privat-docent Oser, in a recent number of the *Wiener Medizinische Presse*, says that two years' additional experience has confirmed him in the belief that an elastic tube is much better for the purpose of rinsing out the stomach than the gutta-percha sound hitherto in common use. The tube is of india-rubber, two metres long, and with perfectly smooth surface; both ends are rounded off by heat; two sizes are employed, the smaller tube having a lumen of eight millimetres and a wall two and a half millimetres thick, and the larger one a lumen of ten millimetres and a wall of three millimetres. This latter is preferable, as it is less compressible and allows the passage of larger substances through it. The tube is passed at the first sitting by the patient himself, who takes it between the forefinger and thumb of the right hand, lays the end on the back of the tongue, makes a swallowing act, and then pushes it gently along, during successive pauses between the acts of swallowing, deeper into the œsophagus. Patients learn the manipulation at the first sitting; the method of introduction causes decidedly less annoyance than the ordinary passage of a tube by the physician himself. The patient has less anxiety, gains confidence quicker in the manipulation, and the reaction is less. There is no danger of injury to the mucous membrane. After a few trials he can readily feel the tube touch the lower end of the stomach, and quickly recognizes the depth to which it should be passed to best allow of a free evacuation of the contents of the stomach. The action is on the principle of the siphon: the tube when fully introduced is pressed together between the fingers at the lips, and the free end is filled with liquid through a tunnel. If the end is now sunk below the level of the stomach, the fluid flows out of the stomach in a strong stream. If the stream is interrupted by a contraction of the œsophagus or diaphragm, the tube is withdrawn about a centimetre and then pushed back; the stomach is thus induced to contract, and a beneficial influence upon the muscular coat is induced. In dilatation of the stomach from any cause, and in chronic catarrh, it is of service. Unfortunately, there are certain cases in which from the first the pharynx is so irritable that the procedure cannot be perfectly carried out, as the contraction is so great and the vomiting so persistent that the tube does not enter. Here, as well as in those cases where it is necessary to pump out solid particles of large size, it is necessary to have recourse to the stiff tube, as the exhaustion of air causes the flexible tube to collapse.—*Boston Med. and Surg. Journ.*

Picric Acid for the Cure of Sore Nipples.—Dr. Charrier, in the last number of the *Courrier Médical*, suggests a new remedy in sore nipples. He employs two dilutions—

A. Distilled water, 100 grammes; picric acid, 1 gramme, 30. *B*. Distilled water, 100 grammes; picric acid, 1 gramme. He first washes the breast and nipple with tepid water, and then applies to the fissure solution *A*, and after a short time washes the part for four minutes with solution *B*. It does not interfere with suckling, as children continue to take the breast with avidity.

Dry Preparations.—For preparing rapidly bones and ligaments for museum purposes, Dr. L. Frederick (*Bulletin de l'Académie Royale de Belgique*) recommends that after the soft parts have been taken away, except the ligaments, the preparation be washed in water, dehydrated by alcohol, and then plunged into essence of turpentine. After two or three days' maceration in this fluid, the skeleton is placed in the position in which it is designed to keep it, and dried in the air. In drying, the bones and ligaments become beautifully white, and the whiteness increases as time passes. The same process gives less satisfactory results for muscles. For a parenchymatous organ, on removing it from the turpentine bath, Dr. Frederick plunges it into melted wax or paraffin during half an hour to two hours, till the bubbles of turpentine have ceased to pass off. When withdrawn and cooled, the piece resembles a wax model, but is far superior in its minor details: the color of the organ persists.

Endurance of the Reindeer.—In one of the palaces in Sweden there is a picture of one of these animals, which is preserved with

great care, from the fact that the animal from which it was painted drew the sledge of an officer, with important dispatches, the distance of eight hundred miles in forty-eight hours!—Prof. Tenney, *in Popular Science Monthly for April.*

DR. POGGENDORFF.—On January 25, Dr. Johann Christian Poggendorff, the illustrious Professor of Physics in the University of Berlin, died in that city, at the ripe age of eighty years. Poggendorff began life in a pharmacy, which he entered at the age of sixteen, and continued therein eight years. Upon leaving the pharmacy, he entered the University of Berlin, and devoted himself exclusively to the study of chemistry and physics: about this time he published his first paper, others followed in quick succession, and at the present time nearly one hundred and fifty papers are attributed to him in the Royal Society's catalogue. In 1824, he undertook, on the death of the editor, the work of editing the *Annalen der Physik und Chemie*, of which he lived to receive the jubilee volume.—*The Doctor.*

THE PSYCHOLOGY OF LAUGHTER.—Perhaps the psychology of laughter has never been better expressed than by Hazlitt:

"Man," says the writer, "is the only animal that laughs, for he is the only animal that is struck with the difference between what things are and what they ought to be."—*The Doctor.*

THE Medical Department of the Syracuse University is founded upon the idea of the co-education in medicine of the sexes and the graded system of study for three years. According to the recent catalogue, its students number thirty-one males and seven females.

IN Boston and elsewhere a crusade is threatened against the Spitz dog, because he is thought to be especially prone to hydrophobia. This is probably a mistake; but he is a useless animal, very apt to bite and be generally cross and ill-natured. Hand him over to the vivisectors.

DR. WARLOMONT, of Brussels, states that, out of more than ten thousand children vaccinated with animal virus, not one was attacked with smallpox during the severe epidemic of 1870.

IN November last the Medical Society of London unanimously resolved "to exclude persons of the female sex from either becoming fellows of the society, or from being introduced to it as visitors."

THE French Pharmacopœia requires that all medicinal substances be weighed in the preparation of prescriptions.

THE law officers of the Crown have decided that under the Act of August last the Senate of the University of London has the power to examine women for degrees, and that such as pass become members of convocation, but have not the right to take part in the government of the University.

IN January, at the age of 52, died Prof. Hofmeister, of the University of Tübingen, the greatest of vegetable physiologists and embryologists.

THE celebrated biologist, Karl Ernst von Baer, died recently, at the age of 83.

IT is proposed to tax the physicians of San Francisco who have an income of three thousand dollars and upwards, forty dollars a year. They object.

DR. COWLING, of the *Louisville Medical News*, has been elected to the Presidency of the College of Physicians and Surgeons of Louisville,—evidence that the power of "the Siamese-twin-school" faction of the Louisville Medical College is waning.

THE *Buffalo Medical and Surgical Journal* has revived under the effects of a transfusion.

NOTES AND QUERIES.

SALICIN IN RHEUMATISM.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

I have employed salicin in the treatment of acute articular rheumatism in three cases, and I will give you the result of the treatment. In the first case, a girl, æt. 9 years, and the second attack,—the first one lasting for two weeks,—I found, December 6, the temperature 104½°, with pain and swelling of knee and ankle, also pain over the heart, accompanied with friction-murmur. I ordered magnesia, to be followed with alkalies in full dose, and in six hours by salicin, gr. xv, to be repeated every two hours. When this treatment had been pursued two days, I found almost complete recovery, and the dose of salicin was lessened, and was not required after the third day. Case 2. Boy, æt. 10 years. The same course of treatment was followed as in the previous case, with the same success, in three days. Case 3, February 2. This is the same girl I saw in December, and the same treatment was pursued; but at the end of the second day my stock of salicin was exhausted, and on the fourth day I again began the administration of salicin as before, and on the fifth day I pronounced the case well.

I give the salicin in water, and from my experience believe that the dose required is not less than twenty grains for an adult, to be repeated every two hours, and continued for two days or until pain is entirely relieved. Not a single unpleasant symptom has followed the use of this remedy in my cases, and in the last case the patient was able to walk about the room during the whole course of the disease.

S. W. MORRISON, M.D.

LEWISVILLE, Chester Co., March 20, 1877.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM MARCH 11, 1877, *TO MARCH* 24, 1877, *INCLUSIVE.*

RANDOLPH, JNO. F., SURGEON.—Assigned to duty at Fort Trumbull, Conn. S. O. 61, Military Division of the Atlantic, March 17, 1877.

GREENLEAF, C. R., SURGEON.—Assigned to temporary duty in the office of the Medical Director of this Department. S. O. 40, Department of the Gulf, March 6, 1877.

SKINNER, J. O., ASSISTANT-SURGEON.—Assigned to duty at Fort Johnston, North Carolina. S. O. 49, Department of the South, March 13, 1877.

WOOD, M. W., ASSISTANT-SURGEON.—Assigned to duty at Cantonment Reno, Wyoming Territory. S. O. 34, Department of the Platte, March 13, 1877.

GARDNER, E. F., ASSISTANT-SURGEON.—Assigned to duty at Camp Hancock, Dakota Territory. S. O. 31, Department of Dakota, March 15, 1877.

ANDREWS, W. C. C., ASSISTANT-SURGEON.—Assigned to duty at Fort Stevens, Oregon. S. O. 22, Department of the Columbia, March 7, 1877.

HASSON, A. B., SURGEON.—Died March 19, 1877, at Fort Trumbull, Conn.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, APRIL 14, 1877.

ORIGINAL COMMUNICATIONS.

APPLICATION OF FORCEPS IN HEAD-LAST PRESENTATION.

BY EUGENE P. BERNARDY, M.D.

IS there more danger to the child in having the after-coming head delivered with the *forceps* or by *powerful traction* made upon the body of the child? Is it consistent with common sense that the slender and delicate neck of a child should be pulled and dragged on with such pertinacity? I am certain no child's neck was ever made for such purpose, and I certainly believe that there is almost in every case some damage done either to the mother or child, in some cases to both.

Prof. Meigs, in his excellent work on obstetrics, claims the forceps as the child's instrument; and truly is it in head-last presentation.

I am certain that by the application of the *forceps* on the after-coming head we give a better chance to the child for its life, with less danger of inflicting any injury on it or the mother.

I will cite some cases occurring in my practice, and the method of treatment adopted in each.

Case I.—Mrs. M. S., age 20, first child; was called to attend her on the evening of August 15, 1870. She had been in labor some twenty-four hours. On examination, I found the os perfectly dilated, and breech presenting. After waiting for two hours, I ruptured the bag of waters during a pain, which caused the breech to descend rapidly, and in a short time the breech and body were delivered without any trouble; but I was enabled to deliver the head only after using the greatest amount of traction. While making traction I distinctly heard something snap; in fact, the patient and the nurse heard it. I could not detect anything wrong immediately after birth; but the next day the mother called my attention to the child's neck, and on examination I found the fourth and fifth cervical vertebræ separated. It took nearly three weeks before the parts regained their normal condition.

Case II.—On the morning of August 17, 1871, I was requested by Dr. K. Gilbert to take charge of Mrs. E. H., age 20, then in labor with her first child. She had been in labor some ten hours. On making an examination, I found the os dilated, bag of waters ruptured, and in less than twenty minutes from the time I entered the room the breech and body of the child were delivered. Now came the tug of war: try my utmost, I could not disengage that head. I had sent for my forceps, but I could not remain idle until they arrived: I must do something, and that quickly. Wrapping the child's body in a towel, I braced myself against the side of the bed (the patient lying across the bed); I used my utmost strength, lifting the patient nearly a foot from the bed; the pump-handle method was tried: all at once something snapped, and in a few moments an asphyxiated child was born, which came to after an hour's hard work. On examination, separation of the third and fourth cervical vertebræ was distinctly detected. I followed up the child for nearly six months, when it gradually recovered from the injury, but I believe in the following summer died of congestion of the brain.

Case III.—Mrs. M. R., age 35, fifth labor; patient of Dr. Donnelly. The doctor being out of town, the case was sent to me by Dr. Wm. H. Hooper, on the morning of August 26, 1872. The patient had been in labor during the preceding day. On examination, I found the waters ruptured, os fully dilated, and the breech pressing on the perineum. In about a half an hour's time the body of the child was delivered. The head still remained, and after using some powerful traction I succeeded in delivering the patient of a living male child. In this case I could not detect any injury to the child.

Case IV.—Mrs. M., age 30, fifth confinement; was called to attend her on the evening of December 14, 1872. On examination, I found the os perfectly dilated, vertex presentation, right occipito-anterior position, contraction of the antero-posterior diameter to from two and three-quarters to three inches, with bony tumor on right side of pelvis.

The history of the case was bad; craniotomy three times; her fourth child, premature (seven months), was delivered living, by Dr. Hooper, with the long forceps.

Recognizing the difficulty, and believing it to be a case requiring craniotomy, Dr. Hooper was called in consultation. We attempted to deliver with the long forceps, but unsuccessfully. Having determined to perform craniotomy, the instruments were sent for. While the messenger was away, in consultation, we decided to deliver by version, and, if we could not then deliver, to perforate the head posteriorly.

Version was commenced by Dr. Hooper, and completed by myself. The body of the child was readily delivered, but there remained the head. We each took our turn in making traction of the most powerful kind, but we were rewarded only by the cracking and snapping of the bones of the neck; we then applied the forceps (Wallace), tying the handles together, and, after the most prolonged and

powerful traction, delivered the unfortunate patient of a dead child.

On examination of the child, all the cervical vertebræ were found to be dislocated, and I really believe had we not applied the forceps, but continued our traction, the body would have been severed from the head.

Case V.—Mrs. R., age 28, second child; had been in labor some eight hours when I arrived at her bedside (February 16, 1874). On examination, I found a left posterior face presentation. The os being dilated, I decided to perform version by the bimanual method, which was done very easily. After getting the breech to present fully at the superior strait, I ruptured the bag of waters during a pain, which caused the breech to enter the cavity of the pelvis, and in the course of an hour the body of the child was born.

In this case I decided not to use such powerful traction as I had been in the habit of doing, but to apply the forceps at once: this being done, I was able in a very short time to deliver the patient of a living child, without any injury to either.

Case VI.—On the evening of September 13, 1874, I was called to attend Mrs. T., age 40, in her eighth confinement. Her parturient history was forceps in all but one case. When I arrived at her bedside she had been nearly two days in labor, believing, as she herself stated, that she would cheat the doctor and have her child without any trouble. On examination, I found the os dilating, bag of waters unruptured, and breech presenting. Labor was tedious. After waiting for four hours I ruptured the bag of waters; the breech slowly descended, and finally towards morning the body of the child was delivered.

I made just enough traction to slightly put the neck on the stretch; this was done by throwing well over the mother's abdomen the body of the child; the forceps were applied, and in five minutes' time the patient was delivered of a living child, both mother and child uninjured.

Case VII.—Mrs. S., age 35, third child; all her previous labors were trunk presentation; version performed, and dead children delivered.

When called to attend her (October 9, 1875), she had been in labor a few hours. On examination, I found an antero-posterior contraction of about three and a half inches, os dilating, waters intact, and footling presentation. Seeing I was not wanted, I left, with orders to be sent for at once if the pains increased. Towards 6 A.M., a messenger came for me, and in a short time I was at her bedside. I found her in good pains, and learned that the waters had ruptured during the night.

On examination, I found the os perfectly dilated, waters ruptured, and left foot in the vagina: making slight traction on this foot, I made the breech engage at once, and in the course of an hour the body was delivered. Bringing the patient across the bed, I now made powerful traction; the pump-handle method was tried, but without success. I then applied the forceps (Wallace), and in a short time delivered the woman of a dead child.

As good fortune would have it, I was again called to attend Mrs. S. (January 2, 1877) in labor. On my arrival I found she had been in labor a good part of the day before, and that on the increase of the pains I was sent for (January 2, 1877, at 5.30 A.M.). On examination, I found the os perfectly dilated, bag of waters intact and at each pain pressing in the vagina. I could not detect any presenting part, but towards the right posterior portion of the bag of waters I thought I felt the funis. I ruptured the bag of waters during a pain, and down came the cord,—a complete prolapsus of the cord. On pushing my examination further, I found an anterior trunk presentation.

Here were complications,—complications that gave me serious doubts of being able to deliver a living child. My first effort was to reduce the cord; which I effected by placing as much as I could of the cord in the palm of my hand, and carrying it up to the fundus of the uterus: leaving it there, I quickly passed my hand downward and seized a foot (left, as I afterwards ascertained), made sufficient traction to make the breech engage, and I found, to my great pleasure, that the cord remained reduced. The pains being good, the body of the child was soon delivered; the arms being up side of the head were brought down after some trouble. I now decided to use no traction, but to apply the forceps and deliver at once. Making the nurse hold the child upward and out of my way, I applied the forceps (Simpson), and delivered the woman of a living child.

Case VIII.—Mrs. R. H., age 22, second child; first child delivered by the forceps dead. I was sent for in a great hurry on the afternoon of October 14, 1875, with the statement that the child was half born. On my arrival I found all but the head of the child delivered. The body was perfectly black. Throwing the body of the child well over the mother's abdomen, and having it retained there by one of the women present, I applied Simpson's forceps, and delivered the patient of a partially asphyxiated male child, which was soon brought to by smart spanking.

According to the statement of the women present, the child's body had been born a half an hour before I arrived. How far this is true it is impossible to say.

Case IX.—Mrs. K., age 39, fifth confinement; in her previous confinements had been delivered by forceps. I was called to attend her on the evening of October 5, 1876. She had been in labor all day. On making a vaginal examination, I found the os perfectly dilated, bag of waters intact, and a left posterior face presentation. There was slight contraction of the anterior diameter.

The family, after being made acquainted with the condition of things and what was to be done, demanded a consultation, which I readily granted, and the family physician, Dr. Hooper, was sent for.

On his arrival, we decided to perform version. The patient was etherized and brought well to the edge of the bed. I then performed version easily, it not taking me ten minutes to perform it. After the body and arms were delivered, the forceps were applied (Wallace), and in a very short space of time I delivered the patient of a living child. Mother and child uninjured.

Case X.—Mrs. B., age 27, first child; was requested by Dr. Hooper to see her with him. She had been in labor seventy-two hours. Breech presentation. After examination, it was decided to bring down the breech with the blunt-hook, by applying it in the groin and making traction. This was done, and the body readily delivered.

Now came the trouble: the head would not come, in spite of the most powerful traction used. We at last decided to apply the forceps, which being done, the patient was delivered, in about ten minutes, of a dead child.

There was found, on examination, fracture of the spine, both in the cervical and dorsal regions.

Case XI.—Mrs. T., age 30, fifth child; always had abnormal presentations. Was sent for to attend her May 4, 1876. She had been in labor for some twenty-four hours. On making an examination, found the os dilated, waters ruptured, both arms in the vagina, trunk presentation.

Having etherized the patient, I readily performed version. The body was easily delivered, but the head remained undelivered. Throwing my full strength upon the body, I made powerful traction, while the nurse pressed well down over the pubis, but without success. I then applied the forceps (Wallace), and in a short time delivered the patient of a dead child.

In looking over the above cases it will be seen that three cases were delivered by traction, four cases delivered by traction and forceps, and five cases delivered by forceps *alone*. In all the cases where the forceps were applied at once *the children were born alive and uninjured.*

In Case VII. the patient was delivered twice, once by traction and forceps, which gave a dead child; the second time, where the complications were of the most serious character, and where the chances for the child were greatly diminished, by the timely application of the forceps I was able to deliver a living child.

Where traction was resorted to before the application of the forceps, all died. Out of three cases delivered by traction alone, only *one* was uninjured.

The above record shows most decidedly in favor of the early application of *forceps*, for we have here twelve cases in all,—five cases delivered by the forceps alive and uninjured, while of the other seven cases we have the history of only one case uninjured. I may here state that in nearly all the cases supra-pubic pressure was employed in conjunction with traction.

I cannot be convinced that it is safe to apply on the body the amount of traction as stated by some writers. I know of two authentic cases where by the use of powerful traction detruncation of the fœtus occurred. There is no necessity for these sad consequences, for with the forceps we have the head entirely at our command, and the force is applied directly on the strong head of the child.

Another pernicious rule which some writers recommend, is to introduce one or two fingers in the child's mouth and make traction. I most decidedly condemn such practice, for I am certain that no child's inferior maxillary could stand such traction without being dislocated or fractured.

Some of the points in favor of the forceps are:

1. In a deformed pelvis or an abnormally large head, by the application of the forceps we can reduce the volume of the child's head without injuring it, rendering it as much as possible in accordance with the conformation of the pelvis, and also reducing the ratio of injury to the mother; injuries which must occur where powerful traction is made.

2. In breech, especially in artificial breech or breech made by version, there is more or less extension of the head, which the forceps can readily correct, and which if traction is used can only be corrected by the most powerful effort.

3. By the application of the forceps on the after-coming head we have complete control of it, and can easily correct any malposition, and place the head in the most favorable position for delivery, with the least amount of risk to mother and child.

I do not wish it to be understood that I advocate the application of forceps in every case of head-last presentation, but I most decidedly recommend and give preference to the forceps in cases where powerful traction is demanded.

In the application of the forceps on the

after-coming head, we have not, as some believe, insurmountable difficulties to overcome. The body of the child does not interfere materially; the child's body with its arms is given in charge of an assistant or nurse; the back of the child is brought well over the mother's abdomen, in anterior positions (patient lying on her back); while in posterior positions the back of the child is brought well towards the mother's back (the patient lying on her left side); this will place the child's body almost entirely out of the way, and we have only to apply the same rules here that govern us in the application of the forceps in head-first presentations.

In head-last presentations we must bear in mind that a life trembles in the balance. A few minutes at the most will decide the child's fate: therefore, why hesitate? If it is found that slight traction cannot bring the head, apply the forceps at once, and deliver.

221 South Seventeenth Street.

JABORANDI IN BRIGHT'S DISEASE.

BY EDWARD T. BRUEN, M.D.,

Physician to the Philadelphia Hospital.

I AM not one of those who would base conclusions in therapeutics from the observation of a few clinical cases; but, as experience in administration of drugs is of extreme service in estimating their value, I wish to place on record the following notes based upon instances in which I have prescribed jaborandi during six months of service in the medical wards of the Philadelphia Hospital.

Case I.—Catherine B., æt. 30, married, the mother of five children, August 24, 1876, was admitted into my ward. Her occupation as waiter in an eating-stand in a market was attended with constant exposure to damp and cold, but she always enjoyed health, save an occasional attack of rheumatism. It would appear from her narrative that two years ago she took a "general cold;" and her disease probably dates from this period. She soon after experienced a good deal of dyspnœa on exertion, with palpitation of the heart, and her feet and legs became œdematous. In all this time she was only confined to bed once, when she says she was much troubled with dropsy, but she recovered after brief treatment.

When I saw her, she had intense general anasarca; face, arms, and legs were enormously distended. She passed scanty amounts of urine, from six to eight ounces in the twenty-four hours. It was highly albuminous, and subsequent microscopic examination revealed casts of entire tubules filled with epithelial cells, also granular and small epithelial casts. Subsequently, in December, I found large hyaline with fewer epithelial casts. There was intense dyspnœa from œdema of the lungs, with bad headache; the action of the heart was very feeble; the pulse could scarcely be detected, but was estimated to be about 140. There were pleural adhesions over right side, and some effusion into both pleural cavities. She was ordered jaborandi ʒij to be made into infusion with aquæ ℥ij, the entire amount to be taken in one or two hours. She was to be wrapped in blankets, seated in a rocking-chair, as dyspnœa prevented a recumbent posture. In less than one hour after taking the tea she perspired profusely, the dyspnœa and headache were relieved, and the general condition of the patient was much improved. There was no depression whatever, nor any nausea, which is said to occur frequently. I have never witnessed any unpleasant result after its use, and in only one case did I notice the salivation which Dr. Fothergill in his late work on Therapeutics reports as constant in some cases observed for him in an English hospital, much the same dose being employed.

August 25.—She says she has passed more urine than since her attack commenced. The same treatment was repeated, jaborandi ʒi being employed. It would be tedious to detail the daily notes of her condition. Let it suffice to say that the administration of the drug was continued every other day for a week, every third day for a week longer, the result being equally satisfactory. On the third day she was able to lie down in bed, and a marked improvement in her general condition was noted. The only other drug used was infusion of digitalis, administered in doses of ℥ss. every three hours for one week, until the pulse was reduced to 100, below which it could not be brought, as unpleasant symptoms resulted if digitalis was given after this effect was obtained. The very great relief afforded very soon after each dose of jaborandi is the point I wish to call attention to; though digitalis was most valuable as an auxiliary.

In the middle of September she left the house, but, meeting with neglect, her symptoms returned with all their former severity, and she was again admitted to the hospital. She was relieved by the same treatment of the severe symptoms in a shorter period, and she was subsequently kept upon iron and a tonic treatment, with occasional doses of jaborandi whenever the dropsy was troublesome.

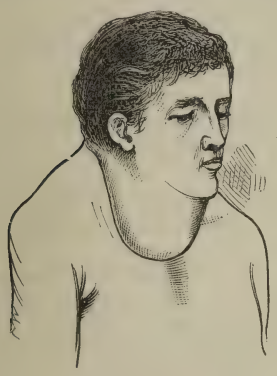
The anasarca was never completely subdued, and from time to time she suffered much from dyspnœa. I have used in these cases with much benefit, markedly so in her case, the following prescription:

℞ Ammon. brom., gr. xlviii;
Ammon. carb., gr. xxiv;
Aq. camphoræ,
Mucilag., āā q. s. ℥iij.—M.

Tablespoonful well diluted, four or five times daily.

Sometimes I could omit the carbonate of ammonium; but it seemed to benefit the circulation by its stimulating effects.

From time to time she suffered exacerbations of her disease; but for six months these have been palliated by the means I have detailed.



Case II.—Henry P., æt. 18, admitted September 4, 1876, I bring before your readers because he presents a most unique example of localized œdema in Bright's disease. He is a dwarf.

His urine was highly albuminous, scanty, epithelial and granular casts abundant, with a history of dropsy and other symptoms which made the diagnosis easy. The tumor itself, located in the cervical region, was elastic, shiny, and pitted upon pressure. It had appeared a year before, with only slight general anasarca, and had disappeared under treatment in the Episcopal Hospital.

℞ Jaborandi, ʒii;
Aquæ, ʒiii.—M.

was ordered as before, to be repeated the second day. Milk diet, and the preparation of iron in the well-known Basham's mixture.

At the end of a week there was no evidence from inspection that a tumor had ever existed: he sweated profusely after every dose of the drug, and expressed himself as feeling much more comfortable. At present date the tumor has never returned.

Case III.—Robert F., æt. 50, admitted October 9, 1876. In this man's case the dyspnœa from intense œdema of the lungs was as severe as I have ever seen it. There was some general anasarca, and the patient was nearly comatose. He took jaborandi, administered as in the previous cases, for three weeks every other day, with the carbonate of ammonium for about one week, as in prescription given. He sweated profusely after every dose; at the end of the time stated he was completely convalescent. He, as did most of the others, used to beg for his medicine, for he recognized the great benefit he derived from it.

In the following cases I also used jaborandi to relieve the suffering caused by dropsy when uræmia appeared inevitably about to come on, and recurred to its use whenever the symptoms appeared.

I give their names and dates of admission to show the length of time during which I had them under observation, and to demonstrate that the effect was more than temporary.

William Locker, æt. 40, admitted December 2, 1876. Not discharged.

James Dillon, admitted August 9, 1876. Discharged October 12, 1876.

Edward McFaut, admitted December 19, 1876. Discharged February 15, 1877.

James Williams, admitted December 12, 1876. Not discharged.

I know of no other agent which will afford so great relief as this drug. The use of steam baths cannot be substituted in its place, though these are valuable in a few cases where jaborandi is, for some reason, inactive; but some of my cases were relieved by the drug after steam baths had totally failed.

There is very little depression of the system from its use. In one instance a nurse gave a dose of it to a man suffering in the second stage of pneumonia with some symptoms of typhoid state: here there was considerable depression, but the free exhibition of stimulants in twenty-four hours relieved all bad effects. In one case of phthisis a profound sialagogue effect was produced: the patient said, "The water seemed to leak into my mouth like a fountain:" she filled several receptacles during the night, but all inconvenience passed away during the day. After using jaborandi, my patients were placed, as I have stated, on milk diet, principally, and Basham's mixture.

I write in hope of inducing the profession to make use of the drug in private practice; for, after some years' experience in this house in the treatment of Bright's disease, I can truly say I have never had so favorable results from any other drug or plan of treatment in the management of the serious and protean symptoms of this grave disorder.

March 8, 1877.

It is affirmed by the *Pharmacist* of Chicago that the trial is to be made of heating the city of Lockport by steam conveyed in iron pipes covered with asbestos and enclosed in wooden tubes.

RESULTS OF AN ANALYSIS OF THE ROOT OF GILLENIA STIPULACEA.

BY H. M. WETHERILL, JR., M.D., Ph.G.

From an Inaugural Essay.

THE genus Gillenia comprises two species,—G. trifoliata and G. stipulacea. To find the relative proportion of active matter in the roots of each variety, the author takes of the clean dry root of G. trifol. 600 grs.: of this, 481 grs. was cortex, 110 grs. was woody fibre. Loss, 9 grs. G. stip., 600 grs.: of this, 503 grs. was cortex, 91 grs. was woody fibre. Loss, 6 grs.

G. stipulacea is thus shown to be relatively the more active of the two.

Vegetable albumen was precipitated from the cold infusion of the root by tannic acid, heat, mercuric chloride, and creasote.

Upon the addition of tinct. iodinii to the filtered hot decoction, the characteristic blue color was struck, indicating starch. Tinct. ferri chlor. precipitated the blue-black gallo-tannate of iron not dissipated by heat.

By the addition of a solution of gelatin, a dirty-white precipitate of tannate of gelatin was produced.

Trommer's test indicates a small amount of sugar.

A pale scanty precipitate of arabin or gum was produced by the addition of alcohol to the cold infusion; a similar result upon the addition of basic lead acetate; but none with the neutral acetate. Resin falls upon the addition of water to the alcoholic tincture. By displacement with chloroform and subsequent evaporation, a green wax is obtained which is insoluble in water either hot or cold, benzine, or alcohol; very soluble in chloroform. Ether separates from it chlorophyll, which Pelletier finds to consist of wax and a green fixed oil. The same portion of the drug which was exhausted by chloroform was next displaced by water, to remove coloring-matter, tannic acid, etc. It was displaced by ether, which yielded upon evaporation a small amount of fixed oil and fatty matter. The fixed oil united with potassa and separated from this combination upon the addition of a dilute mineral acid. The presence of ethereal oil in this substance was obviated by carefully re-distilling the ether to be used.

The addition of strong alcohol to the hot decoction causes a slight precipitate of a dirty-white color. This may be vegetable casein.

By careful distillation of the root with water, in the presence of potassa, a few drops of a volatile oil separated. These are pale-yellowish, and have to a powerful degree the peculiar odor of the plant. This oil does not fulminate with iodine. Some plants of the natural odor Rosaceæ, of which Gillenia is a member, contain propylamia. No odor of fish-pickle was observed in the distillate: hence it probably contains none of the alkali.

A volatile red coloring-matter fills the receiver when the drug is distilled with water.

A portion of the root was displaced with strong alcohol. The resulting tincture was distilled to the consistence of an extract. This was treated with water to remove tannic acid, coloring-matter, etc. The residue was allowed to macerate fourteen days in water acidulated with sulphuric acid, and magnesia was added to saturation. This was next evaporated to dryness, and the resinous mass was treated with alcohol, filtered, and the alcoholic solution allowed to evaporate spontaneously. The result was an amorphous powder, yellowish white, slightly odorous, extremely bitter, unalterable in the air, not astringent, and soluble in water, ether, dilute acids, and alcohol. It cannot be crystallized from any of its menstrua; is non-volatile, and neutral to test-paper.

Sulphuric acid turns it first brown, then black. It strikes a blood-red color with nitric acid, and a green with chromic acid, and remains unchanged when treated with tannic acid; but plumbic acetate, potassa, and tartar emetic throw down white precipitates from its watery solution.

This substance is *gillenin*, the emetic principle of the plant.

The ashes of the root was boiled in water, filtered, and concentrated. This solution gave an alkaline reaction. Oxalic acid precipitated calcium oxalate. Tartaric acid and platinic chloride yielded evidence of the presence of potassium. Neither tannic acid nor potassium ferrocyanide gave any indication of the presence of iron.

A slight opalescence occurred upon the addition of stronger solution of ammonia to the solution of the ashes. This was not soluble in excess of ammonia, but was dis-

pelled upon the addition of a solution of ammonium chloride. Potassium carbonate produces a similar opalescence. Probably a small amount of magnesium is present.

The emetic dose of the root is thirty grains, repeated every fifteen minutes until emesis is produced. It acts with great certainty.

Gillenin, when pure, will produce nausea and vomiting in doses of from one-half to one grain.

Upon injecting a solution of gillenin into the femoral vein of a dog, its physiological action was manifested rapidly. Neither the powdered root nor the active principle has any unpleasant effect upon the respiratory tract, such as has C. ipecacuanha.

A CONVENIENT MODE OF DISPENSING OINTMENTS.

BY ARTHUR VAN HARLINGEN, M.D.,
Chief of the Skin Clinic, University Hospital.

I DESIRE to call attention to a mode of dispensing ointments which I believe to possess certain advantages over that ordinarily in use. In this city ointments are usually put up by the pharmacist in flat boxes of wood, porcelain, or glass, or in some cases in earthenware crocks, or in gallipots. The objection to this method of dispensing such preparations is that a large surface is necessarily exposed to the air, and decomposition quickly sets in, resulting in rancidity. Thus, an ointment intended to be applied to an inflamed surface, where the most soothing qualities are required, becomes rancid in a few days, the skin is irritated, and an effect quite opposite to that intended is the result. It is, I think, often the case that in this way many valuable unguents fall into undeserved disrepute. When kept in a cool place, most ointments, even when put up in the customary manner, will preserve their freshness for a considerable period. There are some, however, and notably the ung. diachyli of Hebra, perhaps the most valuable application of its kind in use, which decompose with great facility, and which in a few days become utterly changed as regards their therapeutic effect, unless preserved with the most scrupulous care. The ung. diachyli has long been a favorite application with me, and yet I have been until recently almost unable to employ it excepting in cases where the prescription could be frequently renewed and freshly made up each time, on account of the quality of rapid decomposition just mentioned.

I have of late, however, been enabled to prescribe this, as well as other easily decomposable ointments and those containing volatile substances, with perfect confidence, by employing a receptacle which will absolutely exclude the air at all times and yet allow free egress to the ointment when required.

The receptable to which I allude is a soft metal tube, such as is used by painters for containing moist colors. This can be supplied of any convenient size. It is cylindrical in shape, open at one end and closed at the other by a top of stiffer metal, having a neck like that of a bottle around which a thread has been cut: over this fits a cap, which can be screwed down so as to exclude the air perfectly. It is even fitted with a little bit of cork at the top, like the lid of a traveller's inkstand. The ointment in a melted condition is poured in at the open end of the tube, and, when filled, this end is pinched together and folded over, the soft metal permitting it to be perfectly sealed by this means. When needed for use, the cap is unscrewed, and by rolling up the flattened end of the tube a sufficient quantity of ointment may be forced out in the form of a plug, taken off with the finger, and applied as required. The operation completed, the cap is once more screwed on, and the ointment laid aside in its air-tight case until again needed. Where the ointment cannot be melted, it may be placed in the tube with the aid of a spatula.

I am indebted to an article in the *Medical Times* of May 30, 1874, for the suggestion of this plan for dispensing ointments, where it is credited to M. Jacques de May, a Parisian apothecary. Tubes of the kind described are to be found in the shops, containing rose-ointment and shaving-paste, but empty tubes of a convenient size have not until lately been attainable. Recently, however, Mr. Joseph P. Remington, the well-known pharmacist, of this city, has procured them for me, and now keeps them on hand, of various capacity, from two drachms upward; and I have employed them largely in dispensary and private practice with great satisfaction.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF PROF. LOUIS A. DUHRING.

Reported by Dr. ARTHUR VAN HARLINGEN.

TINEA VERSICOLOR.

THE patient, a man 35 years of age, presents a diffused, fawn-colored eruption, extending from the neck to the groins, and over the upper portion of the arms. It is made up of ill-defined macular patches of a furfuraceous deposit, varying in area from split-pea to large coin size. At many points these smaller lesions coalesce to form larger, more or less irregular patches. On passing the hand over the surface scarcely any difference in sensation can be noted between the sound and diseased skin, which is elevated very slightly or not at all above the surrounding surface. He states the disease to be of three years' standing; it began in the form of a small patch on the chest and gradually spread, new patches appearing from time to time, until it attained its present extent. The eruption gives rise to considerable itching, which is more annoying at night than during the day.

Few diseases of the skin of common occurrence go more frequently unrecognized than tinea versicolor. Cases often go on for years, undiagnosed and untreated. Inasmuch as the affection resembles several others, it should be examined with care, and in full daylight, since by night the eruption may often be passed over unseen. Vitiligo, due to an atrophy of the pigment of the skin in the form of patches, often resembles tinea versicolor, but the latter is furfuraceous, while vitiligo is unaccompanied by scaling. The patch of vitiligo is white; there is less pigment than normal in the patch; while the surrounding skin is more deeply pigmented than usual. Any one examining a case of vitiligo with care is not likely to mistake it for tinea versicolor. Tinea versicolor is sometimes mistaken for syphilis, but it is difficult to imagine how this error can be made, as the disease in question really resembles none of the syphilodermata except the erythematous in its declining stage, and the so-called pigmentary, which latter is so very rare as not to be at all likely to be met with. Tinea versicolor in those few cases where it attacks the neck resembles chloasma, but it so unfrequently affects this portion of the skin, while chloasma is so rarely found elsewhere than on the face and neck, that the diseases are not likely to be confounded.

The cause of tinea versicolor is a vegetable parasite, the microsporon furfur, discovered in 1846 by Eichstedt, a Swede. There will be no difficulty in making a diagnosis of the disease if we examine some of these furfuraceous scales under the microscope. All the vegetable parasitic diseases, including tinea favosa, tinea circinata, and tinea versicolor, are contagious. Some, however, are more so, some less. Tinea versicolor is the least contagious. Cases may be freely handled without fear, though occasionally a husband and wife contract it from constantly sleeping with each other.

The treatment of tinea versicolor is generally simple. Occasionally, however, the disease proves obstinate. It need hardly be said that in the vast majority of cases external treatment alone is required. When, however, the disease is very rebellious and returns again and again after removal by appropriate applications, which is rare, arsenic and other general tonics may be prescribed. This will not be necessary in the case of one patient out of a number. Where we are able to succeed with local remedies alone, let us avoid internal treatment. In mild cases carbonate of sodium in baths, lotions, or ointment (in the proportion of a drachm to the ounce of lotion or ointment) will at times prove all that is required to effect a cure. A far better remedy, however, is the sulphite of sodium, applied in the form of a lotion, or as an ointment, as in the following:

℞ Sodii sulphit., ℥i;
Aquæ, f℥viii.—M.

This should be sopped on the skin wherever the disease exists, morning and evening, for a week or longer.

TELANGIECTASIS.

The patient, a man 55 years of age, presents an affection, scattered over the trunk, consisting of a number, certainly several dozen, of bright-red circumscribed more or less elevated lesions, varying from pin-head to pea size. They are quite smooth, and are seen on close examination to be composed of little knots and bundles of enlarged blood-vessels, in some cases flat, in others elevated above the skin. They give no sensation of pain, itching,

or uneasiness. According to the patient's account, they appeared suddenly, in the course of a night (and upon this point the patient is quite positive), about three weeks ago, a number of them coming out simultaneously and the others following more slowly, from time to time up to the present.

The affection, Dr. Duhring remarked, belongs to the class of vascular new growths, under which head are included *nævus vasculosus* and *telangiectasis*. The distinction between the two affections lies in the fact that the first is congenital and that the second is acquired. It is not usual for these growths to appear in such numbers as in the present case. Ordinarily, only one, two, or three make their appearance, and, as they are unaccompanied by any inconvenience, persons do not usually seek medical advice unless they happen to be situated upon the face, where they cause disfigurement.

The affection consists of a multiplication and increase in volume of the cutaneous blood-vessels over circumscribed, limited areas. If the statement of the patient be true, that some of the lesions appeared suddenly in the course of a night, more or less hemorrhage must also have occurred, which fact it is difficult now to determine.

The cause of telangiectasis is not understood. The growths usually increase from year to year in size, but very slowly, or they may remain unchanged. There is nothing malignant about them, they are benign in their nature, and it is only necessary to employ treatment when they give rise to disfigurement.

The diagnosis is not difficult: it must be distinguished especially from purpura simplex. At the distance of a few feet it would in the present case, where the lesions occur on the trunk, be almost impossible to distinguish the two diseases, so closely do they resemble each other in appearance. Close examination, however, will show the little blood-vessels ramifying throughout the patches. In purpura we have simply a hemorrhage into the skin, and no dilatation of vessels. Moreover, in a few days a change takes place, the purpuric spots become darker, change color, and disappear in the course of three or four weeks, leaving only stains behind. In the disease before us, however, no such change takes place. The little growths will in all probability remain the rest of the patient's life.

The treatment of these lesions is simple and easy, and the physician is often called upon to prescribe for them. The remedies employed are entirely local, and consist of the use of caustics, as a solution of caustic potash, in the strength of from one to four drachms to the ounce of water. The stronger solutions are to be used only where growths are small, pin-head sized. If they have attained the size of a split pea or larger, weaker solutions should be employed. The fluid may be applied by means of a small piece of wood or a match, care being taken that there shall not be a surplus, which might run over the adjacent healthy tissues. When the growth is somewhat extensive a small portion only should be cauterized at any one sitting. It may happen that no perceptible change will take place for a week or longer, but sooner or later the caustic will have its effect, though one, two, or more repetitions may be necessary to effect a cure. Solution of potassa, Dr. Duhring said, was his favorite application, though nitric acid and other remedies may be used, and also electrolysis.

TRANSLATIONS.

Pediculi Pubis on the Eyelids.—Dr. Dallas (*Revue de Méd. et de Pharmacie*, No. 3, 1877) reports the case of a little girl, three years of age, who complained of constant itching in the eyelids, which she rubbed incessantly. Examination showed considerable redness of the oculo-palpebræ conjunctivæ, which was at first thought to be one of those cases of blepharo-conjunctivitis so common among scrofulous children. Closer examination showed two small granulations on the ciliary border of the upper lid. Their singular appearance led to their inspection by the aid of a lens, when it was perceived that they were pediculi pubis. Further exploration showed the child to be infested with these parasites. The treatment consisted in removing the pediculi and in mercurial inunctions. x.

Heart-Disease and Traumatisms.—At a recent meeting of the Académie de Médecine (*Bull. de l'Acad.*, 1877, p. 215) M. Verneuil read a memoir entitled "Observations upon Wounds in Subjects affected with Cardiac Disease." M. V.'s paper, which is a full one, terminates with the following conclusions. 1. Pre-existent car-

diac affections appear to be capable of retarding or preventing the cure of certain wounds by giving rise to local accidents, among which may be mentioned hemorrhages and diffuse inflammation. 2. As a result of these local accidents and their consequences, wounds are susceptible of reacting upon previous cardiac affections so as to aggravate them, and to provoke, prematurely, symptoms which in general only belong to their later periods. x.

Influence of Intra-Abdominal Pressure upon the Activity of the Kidneys.—E. Wendt (*Centralbl. f. Chirurgie*, 1877, p. 88; from *Archiv der Heilk.*, 17 Jahrg. 6 Heft) experimented upon himself most carefully in various ways. First he estimated the intra-abdominal pressure when sitting, standing, lying on one side or the other in bed and out, and also in the knee-elbow position. In the latter the pressure was negative, while the position on the side gave the least positive pressure. From this he secured the relative pressure in the neighborhood of the kidneys. In the first series of experiments he ascertained the amount of urinary secretion during ordinary diet, while maintaining a certain position for a series of hours. He found the most considerable secretion while lying upon the side. In the second series of researches he drank twelve hundred cubic centimetres of water at once, and measured the amount of urine excreted during successive quarter-hours. A similar result was obtained. On days when the side or knee-elbow positions were maintained the excretion amounted to 5.5 cm. On other days, when the sitting position was maintained almost continuously, the excretion was at the rate of 4.23 cm. per quarter-hour. x.

Excretion of Carbonic Acid by the Skin.—Fubini and Ronchi (*Archivio per le Sci. Mediche:* abstract in *Centralbl. f. Med. Wissen.*) experimented upon a man 27 years of age, whose fore-arm, after measurement of its area, was enclosed in a glass cylinder through which air previously deprived of carbonic acid was passed continuously. The air which thus carried off all the gaseous excretion was then deprived of its CO_2 by the usual means, and the amount of the latter accurately estimated, with the following results: In the dark, less CO_2 was given out than in the light (100 : 113); in higher temperature, more than in lower; during digestion, more than when the stomach was empty (112 : 100); and during a diet of meat, less than during a vegetable regimen (100 : 116). If the excretion of CO_2 from the entire surface of the body is proportionate to that from the fore-arm, 6.80 grm. of this substance is lost by the individual in a day. x.

Treatment of Complicated Fractures by Prof. Bardeleben (*Centralbl. f. Chir.*, 1877, No. 8; from *Charité Annalen*).—In Bardeleben's wards almost all resections and complicated fractures are immediately placed in plaster-of-Paris splints. In complicated fractures accompanied by small, fresh, bleeding wounds (seen within an hour or two), when there is no emphysema, reduction is first practised. Then the immediate neighborhood of the wound, perhaps for a hand-breadth around, is cleansed with three per cent. carbolic acid solution, the wound itself not being touched, with the idea that the putrefactive materials cannot penetrate against the stream of blood. Under other circumstances the wound is carefully washed out with a three per cent. solution of carbolic acid, then covered with "protective" and a thin layer of ten per cent. salicylic jute, and, as a first bandage, a piece of flannel which has been soaked for several minutes in ten per cent. carbolic acid solution. No cotton is employed. Erosions on the extremities are painted with a two per cent. solution of potassa before the dressing is applied over the first bandage; a second, of as rough flannel as possible, is placed, and this is covered with wet plaster of Paris. Over this last bandage is placed a plaster-of-Paris compress, and over this an iron plate from two to three centimetres broad and one-fifth centimetre thick, usually applied on the outside of the limb, but its position depending upon the seat of the wound. These are fastened down with bandages and plaster of Paris. A window is then cut, extending a couple of finger-breadths beyond the wound all around, and the edges of this are disinfected by means of an antiseptic putty (ten per cent. carbolic acid mixed to a paste with whiting). Finally coverings of antiseptic jute, etc., are placed over the window, and the wound closed, the limb being hung in a wire splint similar to Smith's anterior splint.

Generally such wounds, if dressed within twenty-four hours of their occurrence, heal aseptically. In fractures, when suppura-

tion has already set in, the wound is carefully cleansed with a five-tenths per cent. chloride of zinc solution or three to five per cent. carbolic acid solution, a compress of carbolized mull or jute applied, and irrigation with solution of carbolic acid begun. The latter is useful even when sepsis is already present. The solutions mentioned should be used first strong, then weaker. Carbolic acid poisoning is to be carefully guarded against. The plaster-of-Paris bandage may be placed in position after two to three weeks. x.

Some Methods of Arresting Hemorrhages (*La France Médicale*, 1877, p. 85).—Dr. Créquy employs a solution of perchloride of iron, 30° Baumé in strength, with which he has succeeded in arresting hemorrhage from the nose even when tamponning has failed. He has had a canula constructed six centimetres in length (two inches), terminating in an olive-shaped bulb. The extremity of this bulb is closed, but the sides are pierced all around with fine holes, opening backward so that the fluid injected shall not escape into the pharynx. Two or three injections are sometimes necessary to control the hemorrhage. The same method may be employed in bleeding piles; but the above solution is too strong for this purpose, and is apt to be extremely painful. It should, therefore, be diluted with four or five times its volume of water. In metrorrhagia Dr. Créquy combines the sea-tangle tent with the liquor ferri chloridi, wrapping the tent with some tissue soaked in this solution. In case of hemorrhage from the bowel he employs a canula around which is wrapped a piece of rubber cloth, which being tied at each end and connected with a tube can be inflated after the introduction of the canula into the intestine. The latter permits the escape of gas, etc., and also blood if the inflation has not been sufficient, when this can be remedied. x.

Case of Hemiatrophia Facialis (*La France Médicale*, 1877, p. 107; from *Movimento Medico di Napoli*).—A case of progressive hemiatrophia facialis, the first known to Italian literature, the fourteenth (so far as known) on record in medical literature, is reported by Dr. Fanturi. The patient was a young man in good general health, and, so far as known, without hereditary taint of any kind. Following a fever, presumably typhoid, he noticed a circular patch on the face the size of a finger-nail, deprived of pigment, and the hair growing out of which was twisted and decolorized. Within two months this circular patch became transformed into a long cord (*trainée*), which progressed transversely on the temporo-frontal region up to the edge of the hair. When Dr. F. examined the patient he observed an atrophic patch which spread over the temple, the brow, the eyelids, and the nose. On the temporal region the face was atrophied to such a degree that the subjacent bone became prominent. The affected skin was smooth, glossy, and traversed by numerous fine blood-vessels; it showed no follicular structure, was somewhat analgesic, but preserved its electric sensibility. x.

Local Action of Cold.—Schlikoff (*Centralbl. f. Chirurgie*, 1877, No. 7; from *Deutsches Arch. f. Klin. Med.*, Bd. xviii. p. 577) undertook a series of experiments on this subject, measuring the temperature in various cavities of the body while ice was applied externally. The cavities examined were the mouth, hollow of the hand, vagina, intestine (through a fistula), cavity of the pleura (in two cases of thoracentesis), fistula (upper end of tibia). The bladders of ice were applied to the cheek, back of hand, abdomen, thorax, and leg in each case respectively. Schlikoff deduces the following conclusions: 1. Local withdrawal of heat affects the organs and tissues in order of their proximity. 2. The effect is less as the organ is farther removed from the point cooled. The various localities yielded the following results. Mouth (after one hour), at 9 centimetres' distance, a fall of 5.10° C. Hollow of hand (same time), at 2.5 centimetres' distance, a fall of 4.86° C. Pleural cavity, at 3.0 centimetres' distance, a fall of 2.50° C. in the same time; etc. Further, cold drinks reduced the temperature of the epigastrium, and cold enemata the surface of the abdomen. x.

Deep Injections of Chloroform in Stubborn Sciatica.—Dr. De Cerenville reports in the *Tribune Médicale* the remarkable results which he has obtained in this affection by inserting the needle of a hypodermic syringe profoundly into the flesh over the hip or thigh, and injecting thus thirty to fifty drops of chloroform. He alluded to two possible accidents,—anæsthesia of the limb and painful local swelling. Both of these, however, are of short duration. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, APRIL 14, 1877.

EDITORIAL.

PHYSICIANS IN COURT.

WE do not remember ever to have seen in print any form of protest against the utter freedom with which physicians are subpœnaed to appear in court, and this, too, with invariable disregard of the fact that serious results to patients may be the effect of this unthinking tyranny. Aside from their ordinary servitude, physicians, heaven knows, are burdened with a daily sufficiency of petty annoyances, which do not require mention here.

Now let it be asked whether the medical man have not good cause for righteous indignation, when, in the midst of his daily tribulations, he is ordered into court, at his busiest hour, there to cool his heels until called to the witness-stand. He loses hours, perhaps days. Called as a witness, he is cross-examined as an expert, badgered on points the difference 'twixt which is as tweedle-dum to tweedle-dee, but which the lawyers so present as to make the jury believe they are one to the other as zero to infinitude. Or, these crammers of a single night will pompously propound questions in relation to theories which were exploded and ridiculed before their grandfathers were born. If the medical witness then express the opinion that these theories are about as well grounded as the ancient belief that the sun revolved around the earth, mark the look of pity and surprise which crosses the face of the badger as he triumphantly nods to the juryman! Then comes the thundering question, "Do you mean, sir, to deny the published authority of one of the most gifted minds of the *sixteenth century?*" If the witness take refuge in some tremulous, stammering reference to Rip Van Winkle, the bold lawyer appeals to the court for protection from insult. What is the witness to him? Not a gentleman, a man of education, perhaps of renown the tithe of which the lawyer will never achieve; none of these. He is simply a pretender whom the attorney means to show up to the jury as a fool. This is the end and aim of the cross-examination. The purpose of the lawyer being accomplished, or foiled, according as the witness (all unused perhaps to such a position) be calm and cool, or embarrassed, the latter is turned adrift, to go about his business. He has lost hours of time, and, it may be, a handsome amount in fees. What is his remuneration? Nothing more than the miserable pittance allowed to the common witness, and for which no gentleman ever cares to ask. The testimony of a medical man is, in the majority of cases, probably far more important than that of any other witness, and yet his fee is no larger than that of the veriest clodhopper of them all. We look to the courts for justice. This feature, then, looms up as a huge paradox, a ridiculous inconsistency.

By way of illustration we may mention a case recently tried in one of the courts of this city. It was one in which the verdict turned upon a very delicate point, —viz., as to whether the man whose death had given rise to the trial were the victim of an organic disease, discovered post mortem, or of poison administered by the prisoner. The physician who testified in this case had been called simply as a witness, but, shrewdly anticipating a thorough bedevilment at the hands of the cross-examiner, had devoted many hours to looking up the best of modern authorities and in fortifying himself against flank movements. Once upon the stand, and he was questioned not only as a witness, but cross-examined and addressed again and again as an expert, questions being frequently prefaced, "As an expert, doc-

tor, what is your opinion, etc., etc.?" The verdict was based mainly upon the testimony of the so-called expert, who was obliged to abandon his practice for two whole days because of the trial,—a serious loss to him. But when he applied for the expert's fee he was calmly told that the Commonwealth *could not give him more than the fee of the common witness.*

There is, too, a most ignoble lack of courtesy towards the medical witness on the part of the courts, in deferred cases. For example, take a recent experience which has come to our knowledge. A case is set down for trial on a Monday at ten o'clock. The physician is promptly on hand, albeit at a most inconvenient hour. He is suavely informed that the case will not be tried until Wednesday at the same hour. In sweet and angelic mood the doctor turns away, to gather up as well as he may the broken threads of the day's woof. On Wednesday behold the poor slave again in court. The announcement is then made that the case will be deferred until the following day. The doctor begins to wonder whether it would be unchristian to make use of a gentle expletive.

On Thursday, quite habituated now to attending court, perhaps surprised, too, that he has never before realized what fun there is in being thus a toy of the law, he appears for a third time in this heaven on earth. An official then confidentially tells him that another case will probably first be called, and, if it should, then *his* case will be postponed until the *next term*, and if he will come back in an hour he will tell him definitely,—which the doctor does, to be told of a third postponement! By this time he is in the whilom frame of mind of a man who had among the school-boys the reputation of being frightfully profane. The boys one day overtook him as he was driving a load of potatoes up a very steep hill. Creeping up, they quietly let down the tail-board of the wagon, then followed at a distance to watch effects. When the man had reached the top of the hill, his horse stopped to rest, and he then discovered his mishap. Looking now at his half-empty wagon, now at the long wake of potatoes behind it,—never suspecting the boys, who were awaiting the explosion,—his face purpled as he said between his teeth, "—— ——, boys, I can't do the subject justice."

This rank injustice of the courts makes one writhe; and it cuts two ways: it costs the medical man time and money. But how we are to avoid becoming victims?

MILITARY AND NAVAL MEDICAL SCHOOLS.

A VERY interesting report upon the military and naval medical schools of France and England has been made by Medical Inspector Richard C. Dean, U.S.N. The plan adopted in the two countries is different. In France the candidate enters the governmental school at the commencement of his professional studies, and, after a period of study and examination, is given six months' leave of absence, and an allowance in money to enable him to take a diploma from one of the universities. In England, medical graduates aspiring to military honors pass, as with us, through a competitive examination, but, instead of at once being sent to active service, spend four months at the famous school of Netley, where they are carefully trained in the special matters of their peculiar calling. Of the two plans, the latter seems the better, because it spares the government the expense of the whole education, and enables it more completely to pick its material, and also to specialize its instruction.

In our own army and navy the severity of the competitive examination is such that there can be no doubt as to the general professional knowledge of the staff. It, however, can hardly be otherwise than that there is a lack of that special, practical informa-

tion, military and naval, which is drilled into the English surgeons at Netley. We wonder how many of our medical officers could fully answer the following question, taken from the Netley Examination Paper: "What are the points to be attended to in order that the greatest amount of work may be got out of the soldier with the least chance of injury to him?"

Now that the engineer corps of the United States Army has an especial school, it is possible that the wants of the medical corps may be thought of. But we sincerely hope that the teaching may be as in England,—after, not before, entering the service,—may be especial and not general. If this were done, there could be no competition with civil medical schools, and none of the Congressional complications which might possibly come from such cause.

STATE BOARDS OF HEALTH.—We have received reports of the State Boards of Health of Georgia, Wisconsin, Minnesota, and Michigan. All of them contain sufficient to justify the existence of the Boards, but the Michigan report appears to be the best. Many of our readers may remember the health tracts of John Brown, of Edinburgh. We would suggest that a very important work might be done by having distributed well-written sanitary tracts. The success of tracts in religious matters is thought to justify the expense; and certainly this method might be availed of in spreading a practical knowledge of hygiene. Would our tract societies aid?

AN ELECTUARY AGAINST TAPEWORM.—Dr. Du Plessis gives the following prescription:—Kameela, 6 to 12 grammes; pulp of tamarinds, 30 to 40 grammes; cedar juice and syr. cort. aurant. *ad lib.* It is taken in one dose in the morning before breakfast. With bothriocephalus the cure is generally a radical one with one dose. For tænia a stronger dose is advisable.

DR. E. CROSS has found chloral of great service in diabetes mellitus.

CORRESPONDENCE.

LONDON LETTER.

SINCE my last letter, in which I alluded to the mildness of the season, we have had some more seasonable weather, with the effect that the smallpox epidemic is declining steadily in the northeastern districts, though enlarging its area, especially westward. There is little of interest going on in the medical world: so perhaps some account of the *medical charities* of Great Britain may not be uninteresting to your readers. These are of various orders. There are the staple *general hospitals*, where all cases, except smallpox, are admitted. In many now, however, all infectious disease is declined, and if any cases break out in the hospital they are removed to fever hospitals, where such institutions exist. In the old Royal Infirmary of Edinburgh the student could see everything, from an operation on the eye to the progress of confluent smallpox. More recently, however, a smallpox institution has been set up, and the last time I was in the old smallpox wards they were occupied by typhus fever patients. These special hospitals for infectious disease are now being generally established: in towns of any bulk, permanently; in lesser places temporary hospitals, sometimes of wood, are built during epidemics. The well-known London Fever Hospital in Islington is the model on which the others are carried on. Then there are the *special* institutions:—the chest hospitals; the orthopædic; the cancer; St. Peter's, for stone, and St. Mark's, for fistula; the hip; the ophthalmic, three or more of them; the children's, several; the lying-in, several; the hospitals for women in solo; the Samaritan (Mr. Spencer Wells's place); one for the incurable, etc., etc. All these institutions compete for public favor, alike for patients and subscriptions, with the large general hospitals, which have their special departments; and that, too, not without success. Nor is this difficult to understand. At the special hospitals there is no great body of students like that on which the work of the honorary officers largely falls in the outpatient departments of those hospitals to which are attached schools of medicine. A large class of patients, especially of the better order, prefer a hospital where they learn to know and to recognize their medical adviser, instead of having hazy speculations as to which of a series of gentlemen whom they have seen is their real and true physician. Also the public are largely of the opinion, right or wrong, that at these special institutions the subjects are more studied and better understood. At the special hospitals, too, are to be found those energetic men who are kept off the staff of the general, and especially teaching, hospitals, by jealousy, but who are determined not to be blocked thereby. Of course special in-

stitutions must, for their own sake, get the men who have worked at their specialty, in order to hold their own in public estimation. Then there are a very useful body of institutions called *dispensaries*. They differ from hospitals in this respect. The hospitals have beds, and so can admit in-patients; the dispensaries have no beds, but they attend poor patients at their homes. Each has its out-patient department. As a rule, dispensaries avoid midwifery, as that would break up the systematic working too much. In some the resident officers are permitted to take any midwifery they may secure, in so far as that does not interfere with the routine work of the institution. As a rule, however, midwifery is handed over to the poor-law medical officers, and the patient gets an order from the overseers of the poor, or the relieving officer, for the union doctor to attend her when she requires it. Night-work also is avoided, for if the resident officers of dispensaries, upon whom devolves the duty of home visiting, were liable to be knocked up gratuitously by any person at will, they would soon be unfitted for their proper duties. Much, too, depends upon the committees of dispensaries, some of which are fairly sensible and conscious of their position and duties; while others consist of men retired from business, and ambitious tradesmen who cannot get upon the town council, so perch on a lower bough till they can see their way upwards. The dispensaries of the larger towns—Liverpool, Birmingham, Leeds, etc.—are well-known institutions; in Manchester the hospitals and dispensaries are worked in unison. Harmony betwixt the dispensary and the hospital is very desirable, as by such means the best cases from the dispensary home patients can be sent into the hospital; while the dispensary visiting district officers keep an eye on all interesting hospital cases when they are discharged, so that their future history is not lost sight of. The dispensary practice of the towns in the manufacturing districts ought to be more attractive to the better class of men at the London hospitals, who hope to some day get on the staff of their hospital. Such men would see a lot of practice, as accidents, etc., which would be of great value to them; while they would learn much from the home visiting which they never can acquire by remaining in town, unless they attach themselves to some metropolitan dispensary as resident officer.

In the larger towns there are attempts made to imitate the special hospitals of London, while in smaller places one hospital has to serve, or even a dispensary. Recently cottage hospitals have sprung up, and are on the increase. In many cases they are really cottages, with a sensible middle-aged widow in for a nurse, while others are more pretentious and have half a dozen beds. All the institutions mentioned so far are "supported by voluntary contributions," and this is usually written upon some conspicuous portion of the building. In no case is state aid given. The institutions which belong to the state are the *workhouse infirmaries*, of which the large Central London Sick Asylum at Highgate is the most famous. In that hospital there are five hundred and seventy beds, filled largely with the most interesting cases, and under the supervision of an excellent resident officer: so that it is as well worthy of a visit as any hospital in London. These state infirmaries are, most unfortunately, not utilized for teaching purposes; and yet, as on the Continent, they are the most suitable of all hospitals for the purposes of teaching. Such patients rather ought to be made the subjects of teaching than ought the recipients of private charity; while a stimulus would be given to the study of pathology by the fact that such patients could not discharge themselves, and hide themselves to die, when they discovered that a post-mortem examination in their case would be eminently desirable. For scientific purposes these hospitals are practically lost and wasted, as the officials are generally too hard-worked (and insufficiently paid) to do more than their routine duties. They are under the control of the guardians of the poor, *i.e.*, the guardians elected by the rate-payers, and controlled by the Local Government Board, the central authority which looks after the working of all local boards in connection with the funds procured by the rates. The institutions supported by voluntary contributions are ruled by committees who are not responsible practically to anybody, who re-elect themselves, and are only ousted when their management, or rather mismanagement, rouses the wrath of the subscribers generally. Consequently we find medical teaching and the appointments to the great hospitals in the hands of an irresponsible body of laymen who can too often be led by the nose by an influential member of the medical staff, or are actuated by personal feeling either of partiality or antagonism, and who have no time, even if they had the inclination, to scrutinize closely the qualifications of the different candidates; so that the election of any man on the staff is a chance, and commonly influence bears down merit. On each hospital there are a few good men who sustain its reputation, and betwixt them and the hospital a number of incompetent and idle men are floated before the public. Really, after all, it must be admitted that the wonder rather is that so many good men are secured by such a plan of election. Of the good men not secured by this plan, it is necessary to be somewhat intimately connected with each hospital in order to have any fair comprehension of what is lost to the nation and still more especially to the medical world by this system.

The workhouse infirmaries just mentioned are, however, but a small part of the parochial medical relief of the kingdom. They are confined to large towns. For rural districts and

smaller towns the *workhouse* is really a hospital. Each county is split up into several divisions, called "unions," for parochial purposes. Each union consists of a number of parishes, and is provided with a workhouse, to which are attached a medical officer, a master and a set of under-officials, and a chaplain. This workhouse is now but to a slight extent a labor-house, except its tramp ward, where each man breaks so many cubic feet of stones for road-making, to pay for his supper, bed, and breakfast. It is rather a refuge for the infirm, the aged, and the sick poor, and for girls who have been seduced and dare not go to their friends to be confined. It also contains a number of pauper children, and has a school attached to it. Besides these central workhouses, each union is divided into districts, each of which has its own *medical officer*, who looks after the paupers in his district. He receives from the guardians, periodically, a list of those who are permanent paupers and entitled to his attendance when they require it. He also is required to attend all persons who present to him an order from the relieving officer, or the overseers, for his services. The guardians usually see that these occasional orders do not become oppressive, as each special order usually is accompanied by a disbursement. The union officer also visits the various harmless lunatics in his district quarterly, for which he gets a small fee. Orders for midwifery are very charily granted, in rural districts especially, and the union surgeon usually has to perform a great deal gratuitously which ought to be paid out of the rates: if he stood out for his legal rights he would become very unpopular and be regarded as very hard-hearted. Thus it comes to pass that in addition to his defined duties the *parochial surgeon* (the term "*union*" *surgeon* is usually reserved for the officer who has charge of the workhouse) has to do a great deal of unpaid work for his very moderate salary. It is not uninteresting to look into the reason why men, and many of them really good men, hold these parish appointments as long as they can possibly keep hold of them. In the first place, the salary is something, where otherwise they would in all probability get nothing for their services to the poor. In the next, if they resigned them some one else would get a footing in their district. In rural parishes this is a most important affair. The surgeon on the spot gets the parochial appointment and the *benefit clubs* (to be described at some future time), and then he can defy all comers. To resign them would be to invite a new-comer to enter his chosen area. They form part of the bargain when the practice is sold, and are usually stipulated for in the agreement. Once secured, the purchaser is safe in the saddle, and the private practice usually follows them. The appointment of parochial surgeon is made by the local guardians and approved by the central Local Government Board ere it is valid. Once made, the surgeon cannot be turned out without the acquiescence of the Central Board, and that is obtained only on valid grounds. The parochial officer once in the saddle is safe from all but annoyance, of which he commonly gets a sufficiency. Paupers usually are not troublesome about attendance, unless the doctor gets wrong with the parson,—a not uncommon event,—and then he is a good deal worried; but they have a wonderful appetite for medicines. For most paupers a bottle containing some medicinal or reputedly medicinal compound is a *sine qua non* for peace; and some very nasty compound it usually is. At one time the doctor had to furnish quinine and cod-liver oil out of his salary, but now the guardians usually furnish these costly agents; while in large towns, parochial dispensaries are provided to dispense the doctor's order. In rural districts the doctor generally has some cheap, effective, but unpalatable compounds for his permanent paupers, and these disappear too fast to encourage him to indulge the paupers with less nauseous mixtures. These parochial medical officers are of immense service, and do a great deal for their money. Of course there is an everlasting warfare betwixt the surgeon and the board of guardians about the extras beyond the fixed salary,—a warfare usually carried on keenly but with perfect good temper. At times the doctor is pugnacious, or there is some objectionable member of the board who goads humanity beyond its utmost limits of endurance; and then an active quarrel develops into a feud which keeps the union in hot water.

Of course all parochial surgeons are not alike. Some are God-fearing men, and the paupers are well attended to. At other times the doctor is less scrupulous, and makes friends with the relieving officer and the troublesome members of the board of guardians, and then the poor are apt to be sadly neglected. Much indeed depends upon the *relieving officer*. This is an official who is appointed to visit the poor, to pay them their relief, to receive applications for relief, to investigate such applications, to attend the board meetings, to give orders on the parochial surgeons to attend any poor person not necessarily in the receipt of relief, and to check the medical orders for wine, beef-tea, etc. It is obvious where this official is a good honest man he does his own work and sees that the surgeons do theirs. But if he is a scoundrel then he bullies the doctors, gives unnecessary orders, and keeps right with combative elements of the board; or he enters into a friendly alliance with the surgeons, gets his lunch and a drink with them on his rounds, and then the board is nearly powerless to make the services of its officers efficient. The most fertile sources of battle betwixt the parochial surgeons and their boards arise in cases of prolonged catheterism,

where the doctor usually either has a good thing or suffers much hardship, according to the contract betwixt him and the board,—a certain amount of variability as to extras being permitted by the law; and next midwifery, which is the source of many heart-burnings. The board usually tries to manœuvre so that the doctor at the last minute attends gratuitously sooner than let the woman suffer a great risk with attendant unpopularity to himself; at other times the doctor is cool and selfish and is too many for the board. When the woman is too ill to be moved to the workhouse, or out of bed indeed, an application is made to the village overseer for the doctor, who by the time he gets on the spot probably finds all over, or a case for forceps, for which he receives an extra fee. The office of *overseer* is a troublesome one for the holder, as if he gives an order on the doctor which the guardians will not endorse, he is liable to have to pay the doctor himself; on the other hand, if he refuses the order and the woman dies, he is liable to be tried for manslaughter. As to the intrigues, the contentions, and the squabbles which go on in the complex arrangements of the parochial system, volumes, not altogether uninteresting, might be written. Also an exciting chapter might be written as to the way relieving officers play upon public institutions, especially the dispensaries, and contrive to make the dispensary officers do a great deal of the work properly belonging to parochial surgeons, and indeed to themselves. They are up to the turns of the law, while the young dispensary surgeons are not; but every now and again they catch a Tartar: only it may require long months of waiting to get a case where the relieving officer cannot by any turn or twist wriggle himself out of his scrape.

Epidemics rarely assume such a form in the country as to necessitate the Boards of Guardians to build temporary hospitals; and in towns this duty falls upon the Boards of Health. Temporary wooden buildings are often erected, especially when smallpox is rife.

At the Medical Society there has been a discussion on Vegetarianism, enlivened by the presence of two leading vegetarians, Professor Newman, and the author of "The Pilgrim and the Shrine." It appeared, however, that the admission of milk, eggs, and cheese into the dietaries of most vegetarians rendered such dietary non-vegetarian to a considerable extent. It was contended by the advocates of the system that vegetarianism did away with persistent constipation, and by the improvement in the general health enabled the individual to do much more intellectual work. Dr. Thin gave an account of an island in the Malayan Archipelago inhabited by Buddhist priests, where the dietary is strictly vegetarian without any obvious deterioration of the health being induced thereby. Sir Joseph Fayrer stated that the Rajpoots of the northwestern provinces of India were strict vegetarians. They would lose caste if they touched milk or an egg, much less ate them. They were a well-grown, handsome people, with genealogies stretching back far beyond anything known in Europe. The Rajpoot, however, lives largely upon pulse; while the less perfectly developed Bengalee lives mainly upon rice. The introduction of the highly nitrogenized seeds of the leguminosæ into the dietary has compensated for the absence of animal food, and thus a fine physique with much power has been attained. The rice dietary of the Bengalee was inferior in every way; only it was often partly mixed with a cheap form of pulse. The dietary of the Rajpoot approaches closely the Revalenta Arabica so largely sold, and whose good effects in certain cases of concealed gout are so unquestionable. The practical upshot of the discussion was that if glycogen and albuminoids could be furnished to the system in sufficient quantities it mattered little whether they came from the animal or vegetable kingdoms; that some persons required, however, larger quantities of animal food than others; while on the other hand some persons, especially those of a gouty tendency, were equally well if not the better for a dietary almost exclusively vegetarian. Where the habits were sedentary this was specially the case. There was great agreement of opinion that in tropical climates animal food should be but sparingly indulged in, and the more the European adopted the native dietary the better his health would be.

The question of a successor to Sir William Fergusson has exercised the minds of many. The idea of tempting Lister to leave Edinburgh for King's College was mooted. The students at Edinburgh, to the number of seven hundred, signed a memorial to Prof. Lister asking him to remain with them, and on the receipt of it Prof. Lister said that there was nothing in London to tempt him away. Unfortunately, however, he gave expression to some rash opinions as to the teaching of clinical surgery in London, which have roused the surgeons of the Southern metropolis into wrath, and which were as uncalled-for as injudicious. It is probable, then, that King's College will adopt some other alternative to fill up its staff. King's College has been singularly unfortunate in driving away its best men and not attracting them back again. For instance, Christopher Heath, of University College, and Prof. Bellamy, of Charing Cross, are both King's men, either of whom would be a credit to the staff of King's College Hospital. The intrigues of the governing body in driving away their best men, and then having to get in strangers to maintain the reputation of the school, have not only done much to impair the efficiency of King's College Hospital, but they have lowered its prestige and restricted the numbers of students entering. Where the governing body is not actuated by the highest

motives on all occasions, the executive is apt to become deteriorated too.

The subject of the treatment of the individual as well as of the disease is one now attracting much attention. The following cases illustrate this well. A boy of seven had unilateral chorea, for which bromide of potassium and iron were prescribed, but failed to produce their wonted good effects. Noticing a little serrated front tooth peeping out, the probability of congenital syphilis was suggested, and five grains of gray powder at bedtime were added to the preceding mixture. The improvement which followed was swift and complete. Just as the boy was proceeding satisfactorily, his sister, aged twelve, became the subject of severe bilateral chorea, for which bromide of potassium and iron were given. She presented no evidence, however minute, of congenital taint, and, as it was possible that the infection might have been acquired after her birth, no mercurial was given. The case growing worse rather than better, she was taken into hospital. She had had a grain of opium at bedtime in order to procure some sleep. As she had not improved under the treatment for three weeks, a twelfth of a grain of the bichloride of mercury was added to the opium pill at bedtime. In two or three days the chorea was much reduced; and the case is improving rapidly. The girl had been kept in bed at home, so that the removal to hospital cannot be entirely credited with the improvement; the addition of the mercurial has certainly influenced the results. The power which syphilis exerts over the progress of intercurrent disease is now generally recognized, and these cases show how important it is to detect this taint and to allow for it in the treatment. The drugs which ordinarily are sufficient are powerless till the taint is recognized and the specific element added, after which the case progresses in the usual satisfactory manner.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JANUARY 25, 1877.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

Abortion of twins. By Dr. JAS. C. WILSON, for Dr. H. G. LANDIS, of Niles, Ohio.

MRS. J., æt. 35, only child born in April, 1875. In October, 1875, the menses reappeared, and were regular until April, 1876, at which time they ceased. She supposed herself to be pregnant until October, when, finding no other sign of pregnancy, she abandoned the idea. From the 1st of October there was an occasional show of blood ("just enough to stain a napkin") occurring at irregular intervals and continuing for a week or more at a time. For some time she has been feeling in excellent health, and just before Christmas she was examined by an experienced practitioner, who pronounced her not pregnant. On January 1, 1877, she helped to prepare a dinner, received company, and felt unusually well. At noon a decided flow of blood occurred, continuing throughout the day. At 6 P.M., feeling slight pains, she took a sitz-bath. At 8 P.M. I was summoned to her bedside, and found the accompanying specimen lying in the bed, the recent appearance of which was as follows: Fœtus No. 1 was five inches in length, and was enclosed in unbroken membranes containing about six ounces of liquor amnii; to it pertained a placenta of comparatively large size. Fœtus No. 2 was three and three-quarters of an inch long, enveloped in membranes from which the water had escaped. Its umbilical vessels ramify on the membranes and approach the edge only of the placenta, thus accounting for its apparently inferior development. This inferiority is, however, only apparent, since No. 2 has a well-developed anus and the beginning female genital fissure, while the breech of No. 1 is absolutely bare. About No. 1 were several masses looking like coagulated lymph and at places so adherent as to resemble vegetative growths, concerning which I would ask the opinion of a committee. The placenta had the gross appearance of extensive fatty degeneration. Both fœtuses had evidently been dead for some time, and their color is not materially changed by the alcohol in which they are immersed.

The point of especial interest is the unequal development, in which quantity and quality appear to be in inverse ratio. I would also offer the opinion that we have here a case of double-yolked ovum, in which the allantois of one was projected against the decidua vera, or rather against a part of the ovum which subsequently was brought in juxtaposition with that membrane; while the allantois of No. 2 fell in relation with the decidua reflexa, and therefore failed to develop a placenta.

Myoma of the uterus. By Dr. J. C. WILSON.

The specimen was removed from the body of a colored woman, E. D., 67 years of age, who died in the medical wards of the Philadelphia Hospital, January 16, 1877.

She entered the ward on the 6th of this month, and presented on examination the following conditions: great feebleness, extreme emaciation, marked ascites, no general œdema, no dropsy of the lower extremities. The apex of the heart was displaced to the left; the first sound was distinct. The radial arteries were highly atheromatous.

The debility was so extreme, and it was coupled with senile degenerative changes so pronounced, that it was deemed inexpedient to disembarrass the abdomen of the fluid

which distended it, and it was, therefore, not possible to reach a diagnosis.

Stimulus, suitable diet, iron, mild cathartics, and diuretics were ordered. She nevertheless grew rapidly more feeble, and, ten days later, died. The left ventricle was found after death to be somewhat hypertrophied: the mitral valve-leaflets were thickened.

There was collapse of the right lung, and some passive effusion in both pleural cavities. There was a large collection of straw-colored serous fluid in the peritoneal cavity. The kidneys were contracted and granular, and the pelvis of the right one was dilated by reason of obstruction of the ureter by pressure of the tumor. At several points there were signs of old local peritonitis, such as adhesions of the coils of intestines and thickening of parietal peritoneum. The pelvic cavity was occupied by a tumor the size of a cocoanut, which on investigation was found to consist of the altered tissues of the uterus. This mass was connected to the neighboring parts by ancient inflammatory adhesions, among which in dissection were discovered the atrophied ovaries. The tumor is large, its surface nodulated. Some of these nodules are firm; one or two are partially calcareous, whilst several are so soft as to give the sensation of a fluctuating fluid within. The sound enters the uterine cavity to the depth of four inches. On section the neoplasm is found to have invaded the uterine tissue in all directions.

Dr. WILSON said the question of the propriety of running the risks of any operation for the removal of the abdominal fluid in this case gave it some clinical interest. The woman was under his care ten days, during which time the belly was enormously distended with fluid. No previous history could be obtained; her debility was extreme; senile changes were very marked. Would it have been right to evacuate the fluid for the purpose of reaching a diagnosis? It did not seem probable that any treatment would rescue her; whilst the removal of the fluid, or indeed any operative procedure, might have been followed by such a catastrophe as fatal collapse. If she had been tapped, the tumor would have been discovered.

Dr. HODGE asked what was the probable cause of the ascites.

Dr. WILSON replied that none was detected other than the tumor. It was a matter of interest that, beyond the fact of this ascites, the woman was very feeble, emaciated, without œdema and without pitting of the lower extremities. The condition of the liver and kidneys was of course to be taken into consideration, but there was certainly nothing about the liver to account for it. No other abdominal viscera except the uterus were involved. The heart was hypertrophied, but, although the valves were thickened, they were competent.

Dr. HODGE said some tumors of the uterus are said to produce ascites, although he did not think he had ever had a patient under his care in which this was the case. He thought Dr. Wilson had been correct in his treatment, and that there was no need of tapping the woman at the risk of her life.

He thought that still another fact of interest in connection with these tumors of the uterus was the apparent sense of fluctuation they often give, and unless one happen to be familiar with the fact it is almost sure to mislead. Not a few operators have made the mistake of plunging a trocar into such a mass, and have even done so after they had opened the abdomen for its removal.

Dr. W. H. PARISH said that four years ago he had seen a case analogous to this at the Philadelphia Hospital. The woman was admitted to the medical ward with dropsy, then taken to the obstetrical as a case of pregnancy, then into the ward for diseases of women, and then back into the medical ward again, where she came under Dr. P.'s care. Her menstruation had ceased six months before, and her abdominal dropsy was so great that one night he thought best to tap her. Her exhaustion was doubtless not so great as that of Dr. Wilson's patient, and the woman was not so old. But after the tapping the tumor was easily diagnosed. After the tapping, in the course of a few months the dropsy returned, and she was again tapped. She finally died, and at the autopsy the diagnosis of a subperitoneal fibroid tumor was confirmed. In that case tapping was of great service. He did not think he would tap in similar cases unless extreme symptoms like those in his own case prevailed. He thought it not impossible that peritonitis might supervene.

Dr. HODGE thought the danger of peritonitis from tapping amounted to almost nothing when done with a siphon trocar, by which no air can enter. Even when a solid tumor of the uterus is punctured, apparently no inflammation results.

Dr. WILSON said he had not thought of the possibility of death from peritonitis so much as from collapse.

Scirrhous cancer of the stomach. By Dr. J. M. BARTON.

The specimen here presented was sent to me from the interior of the State, with a request to obtain the opinion of some of the profession here as to its pathological character.

The notes of the case are by no means full.

The patient, a man, probably over 50 years of age, had not been healthy for several years, complaining of no pain, but merely a distressed feeling in the stomach when exhausted. It was not until two months before death that he suffered from vomiting, which was quite persistent, occurring after every meal.

About the middle of last month considerable quantities of dark-greenish, unhealthy-looking pus, accompanied by a fluid having

somewhat the appearance of coffee-grounds, were vomited, the latter fluid frequently reappearing during his illness.

Report of the Committee on Morbid Growths, February 8, 1877.—"A microscopic examination of the stomach presented by Dr. Barton shows, by a transverse section of its wall, the mucous and submucous membranes to be infiltrated with tube-like collections of epithelioid cells, which upon transverse section show the cells arranged in a somewhat concentric manner, having no central lumen. Between the tubuli is seen a fibrous-tissue stroma. The morbid growth may be classed as a 'scirrhus ventriculi.'"

Scirrhus of the mammary gland. By Dr. J. M. BARTON.

The specimen was removed yesterday from Mrs. C., aged 51 years.

It is of interest in connection with that of malignant disease of the stomach just presented. In neither case did any symptoms present themselves until quite recently, and at no time was either the seat of any pain.

This tumor presents the usual appearances of mammary scirrhus. Notwithstanding the evident age of the growth, as shown by its size and the fact that some portions had already become softened, it had failed to attract the attention of the patient until a few weeks previous, and then only by its weight and bulk, and not by pain.

Report of the Committee on Morbid Growths, February 8, 1877.—"The mammary gland presented by Dr. Barton exhibits all the characteristics of a scirrhous tumor."

Ovarian cyst. By Dr. H. LENOX HODGE.

The cyst was removed from a patient 60 years of age, by the operation of ovariotomy, seven days ago. She has thus far done perfectly well, and has had no bad symptom. The cyst weighed with its contents twenty-two pounds, one pound being the weight of the solid portions, the rest being that of the fluid. The fluid was of a light straw color, sp. gr. 1008, and did not contain albumen. It has been referred to the committee of this Society on the so-called ovarian cell, for examination. In October last I tapped this same patient, and the fluid then drawn from this cyst was clear and like water, almost colorless, sp. gr. 1007, and did not contain albumen. It was also handed to the committee for examination. The Society, therefore, has the advantage of comparing the results of the two examinations of the fluid with the cyst as obtained by the operation.

The tumor, as viewed from the exterior, appears like one large cyst, but through its walls one or two smaller cysts can be felt. The pedicle was long, thin, and narrow. The Fallopian tubes are greatly elongated and spread out upon the tumor. The remains of the ovary, much flattened, can plainly be seen in the outer wall of the tumor. Upon opening the cyst, on the interior wall the remains of smaller cysts could be seen, which apparently had broken into the larger cyst. One cyst as large as an apple remained, but communicated with the large cyst by an opening of the size of the finger, in its inner wall. Another cyst, of the size of a marble, remained perfectly distinct, and filled with a reddish gelatinous substance. This cyst was situated about two inches distant from the ovary. On the inner side of the ovary, and projecting into the cavity of the large cyst, were several small cysts.

The examination shows that the case is one of true ovarian disease. The disorder may have begun in the ovary, or it may have originated in the broad ligament and extended to the ovary.

Dr. JAMES TYSON had examined, at the request of Dr. Hodge, the fluid removed from the cyst, with the following results. It was quite transparent, but exhibited a slight yellowish tinge, being in this respect different from the product of the previous tapping, which was colorless. The fluid when examined for albumen by Dr. Tyson (this test was deferred until the fluid was eight days old) was found to contain a small but easily appreciable quantity, had a sp. gr. of 1008, reaction neutral, and on microscopic examination was found to contain a *very small number of the granular* (so-called "ovarian") cells and an occasional compound granular cell. Of the "ovarian cells," two, three, and four were found in a single field of a one-fifth object-glass.

Dr. HODGE said he considered the changes in the fluid removed at successive tappings to be of great interest. He recalled another case, that of a lady from New Jersey, from whom he had removed a fluid having all the characteristics of that from a cyst of the broad ligament, being clear like spring-water, and not at all albuminous. At the second tapping it presented a light straw color, and came back quickly. At the third tapping it had all the characteristics of a fluid from an ovarian cyst.

Dr. F. P. HENRY said the changes in the fluid might be explained by the varying blood-pressure. After tapping, the pressure in the interior of blood-vessels is greater and the albumen more likely to exude than in the slow process of growth of the tumor.

Dr. HODGE said the specific gravity of the first tapping was 1007, that of the second 1008.

Dr. J. EWING MEARS said it is well known that in cysts of the broad ligament the fluid is a clear spring-water fluid, and in his experience with them he had never been able to find any solid elements nor any albumen present. With regard to the fluid of ovarian cysts, he was of the opinion that the changes in appearance and constitution which are observed to take place after successive tappings indicated changes in the cysts which attended their development. In simple unilocular cysts, in the early stages of develop-

ment the fluid obtained at the first tapping usually presents the following characteristic features. In color it resembles somewhat ascitic fluid,—may be designated straw-colored,—of rather low specific gravity, not very albuminous, and slightly viscid. Microscopic examination does not reveal the presence of cellular elements in great quantity.

In multilocular cysts, on the contrary, the fluid is of a dark chocolate color; of high specific gravity; highly albuminous, and very viscid. The microscope shows the presence of a large number of granule-cells, blood-corpuscles, granular débris, and sometimes cholesterine plates. Fluid of this character is that commonly regarded as distinctive ovarian fluid. When, therefore, it is found that the fluid removed at successive tappings presents marked changes in appearance and character, he thought it was correct to assume that there had occurred corresponding changes in the nature of the cyst. With regard to the presence of cells in the fluid of cysts of the broad ligament, he did not believe they were at any time found in large quantities. These cysts are lined by cylinder epithelium, and it is possible for some of them to appear in the fluid: he did not think they underwent the rapid fatty degeneration characteristic of the cells lining true ovarian cysts, and hence they would not be thrown off in such numbers, and when exfoliated would not be so altered in appearance.

Dr. HODGE desired to know of Dr. Mears whether he thought the fluid of a second tapping of a cyst of the broad ligament would lose its spring-water appearance.

Dr. MEARS replied that he did not think it would. The admission of air within the sac at the time of tapping might produce some conditions which would change the appearance and character of the fluid. He did not think the changes could be similar to those which had been observed to take place in the fluid of ovarian cysts after repeated tappings. In cysts of the broad ligament tapping is thought by some ovariotomists to be curative, as the cysts did not refill. He thought that Dr. Atlee recommended excision of a small portion of the cyst-wall, as sufficient to effect a cure.

Dr. HODGE said that Dr. Atlee formerly thought tapping was a cure for cysts of the broad ligament, but, finding that they returned, he devised the operation of removing a portion of the cyst-wall through a small abdominal incision. Now, however, Dr. Atlee believes that the whole tumor had better be removed, as in ovarian tumors; also that the tendency of ovariotomists now was to remove cysts of the broad ligament if they refilled after repeated tappings, as they sometimes do.

Articulating surfaces of femur and tibia from a case of excision of the knee joint. By Dr. JOHN ASHHURST, JR.

The patient, a lady 30 years of age, sent to Dr. Ashhurst by Dr. Massey, of West Chester, had suffered from disease of the knee-joint for twenty-three years. The limb was bent almost to a right angle, frequently painful, and very sensitive to cold. The tibia was by measurement four inches shorter than that of the opposite side, and the whole leg and foot smaller than their fellows. Several depressed cicatrices marked the site of former abscesses. The patient walked with difficulty with the aid of a crutch and of a shoe provided with a sole seven inches in thickness, and, finding her condition yearly becoming worse, was willing to submit even to amputation if that should be thought necessary.

As, however, her general health was unimpaired, and her limb showed rather the effects of past disease than the presence of any actively morbid condition, Dr. Ashhurst thought the case a suitable one for excision, and accordingly resorted to that operation on January 8, 1877. The intra-articular structures were found almost entirely destroyed, the inner condyle of the femur being firmly united by bony anchylosis to the tibia, while the latter bone presented a large spot of softened and carious tissue. The soft structures in the popliteal space were so much contracted that, after the removal of as much bone as was thought proper, it was necessary to divide the external hamstring tendon in two places in order to bring the limb into a straight position. The progress of the case since the operation had been entirely satisfactory.

A cutaneous proliferous (sebaceous) cyst. By Dr. ASHHURST.

The growth, the size of a filbert, was removed from the orbital region of a boy 9 years of age. An unsuccessful attempt had been made by another surgeon to effect a cure by the injection of a solution of carbolic acid. The cyst appeared to have very thick walls, no doubt from the accumulation of epithelial débris in its interior, and could only be removed by careful dissection, being firmly adherent to the periosteum. Dr. Ashhurst referred to the importance of early excision in the case of these orbital cysts (which were usually congenital), as if neglected they sometimes led to erosion or even perforation of the bone, and might prove fatal by inducing meningeal or cerebral inflammation.

A firm adenoid tumor from the mammary region. By Dr. ASHHURST.

The tumor, removed from a young married woman, and which had existed for nearly a year, was about the size of a filbert. Though not painful, it was a source of annoyance to the patient. Upon removal, it was found that, though apparently quite distinct from the mammary gland, it was actually connected with the latter, a condition which, as pointed out by Birkett, invariably exists in the case of these outlying mammary growths. The tumor was invested with a distinct capsule of connective tissue, and with it was removed the adjoining portion of the mammary gland.

Extensive fatty degeneration of muscle. By Dr. H. Lenox Hodge.

These specimens are sections of the gastrocnemius and soleus muscles, removed from a subject in the dissecting-rooms of the University. There is no ante-mortem history of the case. The limb, however, had probably been little used, on account of a club-foot which appeared to have existed congenitally.

The sections have the appearance of pure fat in the form of the muscles, and when placed in ether undergo solution and only some shreds of fibrous tissue remain undissolved.

REVIEWS AND BOOK NOTICES.

Hours with John Darby. Philadelphia, J. B. Lippincott & Co., 1877.

Medicine always was a liberal science and art, and its votaries always were found in all the higher pathways of life. It has been asserted, however, that practice is a coy maiden, full of jealousy, and that he who would win must woo her alone. Yet we see science, art, literature, yielding their triumphs to men who are doctors not merely *de jure*, but also *de facto;* men who depend upon their profession for the most serious of all interests,—bread and butter. In our country no great doctor artist or musician has as yet arisen, but in London they abound. The second botanist in the United States is an active practitioner in St. Louis. One of the foremost comparative anatomists in London sweeps upon the full tide of a metropolitan practice. In our own city we have, or have had, ethnologists, palæontologists, botanists, zoologists, comparative anatomists, of note,—all of them active practitioners. One of our most successful practitioners has clambered up into a very respectable niche in the temple of literary fame. And last, but not least, comes John Darby; all day long torturing men, women, and children, as they bring their facial tumors, their deformed maxillæ, their cancerous tongues, their oral woes of all manner and description, from the North, South, East, and West; and at night, forgetful of his deeds of blood, sitting down to the peaceful conquests of the pen.

Of the various books written by this John the present has, we believe, been the most widely praised, and perhaps will be the most generally liked. In some parts it certainly is deserving of much admiration; but we confess to a prejudice in favor of his first book, "Odd Hours of a Physician." The opening and closing chapters of the volume before us have pleased us most; and we think all husbands—whose name is legion—should read them.

"Concerning a Wife" is not mere words and theory: it has in it much that is the very basis of happiness.

For a book to be taken up at odd times, to look at in the carriage, to read aloud from a few moments before dinner or tea, we heartily commend this. The hours with John Darby will be profitably as well as pleasantly spent.

A Course of Practical Histology. Being an Introduction to the Use of the Microscope. By Edward Albert Schaefer. Philadelphia, H. C. Lea, 1877 (reprint).

The title of this book tells what it is about, and in its three hundred small but closely-printed pages is the best epitome of practical histology and the methods of microscopic tissue-study we know of. Full enough for the advanced student, it yet is simple enough for the beginner. The original investigator of course soon gets beyond its limit; but so he does of any but the most encyclopædic treatises: indeed, even these cannot satisfy him. Monographs; original memoirs; rent, riven, twisted, gnarled and knotted, Teutonic polysyllables involved and felted into brain-defying essays,—these are the food such progeny of the gods feed on. The present volume to them is as mother's milk to a man- and heaven-daring son of Anak.

Report of the Fifth International Ophthalmological Congress, held in New York, September, 1876.

This report of the International Congress of Ophthalmologists forms a volume of two hundred and sixty-five pages. It is composed of the papers read and presented by the members of the Congress, and the discussion had upon each. This, the major part of the book, is prefaced by a table of contents, a list of the members, the rules for the government of the Congress, and a brief report of the general proceedings. The volume is a valuable contribution to ophthalmic literature. The numerous and valuable papers read, and the sharp discussions, speak loudly for the activity of ophthalmic surgeons.

Myelitis of the Anterior Horns. By E. C. Seguin. New York, G. P. Putnam's Sons, 1877.

This is a well-written, very complete monograph of the disease of which it treats as occurring in adults. It contains nothing, so far as we have been able to find, that is new, but represents all that we know about the subject. The only objection we have to offer is the struggle in the author's mind to make the so-called progressive muscular atrophy a separate affection, although he seems to be convinced that it ought not to be still considered as distinct, and although some of the cases reported have been diagnosed at one time as muscular atrophy and at another as myelitis of the anterior horns.

Chart of the Physiological Action of Medicines. By Drs. Louis Starr and J. B. Walker. Philadelphia, J. B. Lippincott & Co., 1877.

This is a brief and correct chart of the sub-

ject of which it treats. Clearly and succinctly stated, its résumé of physiological action may be useful not merely to the student cramming for the greenroom, but also to the practitioner as a key to unlock the difficulties of the more pretentious treatises.

GLEANINGS FROM EXCHANGES.

A New Case of Tendinous Suture (*The Medical Record*, February 10, 1877).—M. Duplay recently presented to the Société de Chirurgie, of Paris, a patient, aged 36 years, who, while holding in her hand a number of canes, fell in such a way that her thumb was caught under the canes. The thumb remained flexed on the palm of the hand, and she was utterly unable to extend it. Six weeks later she consulted M. Duplay, and he found that the long extensor of the thumb no longer acted. At the level of the depression between the tendons of the long and short extensor of the thumb, on the outer side of the wrist, he discovered a slight prominence, which appeared to be the upper extremity of the peripheral end of the tendon. The diagnosis of rupture of the tendon being made, he decided to unite the two ends by a suture. The other end of the tendon was found after a long and difficult dissection; but as the distance between the two ends measured from two to two and a half inches, even when the thumb was in a position of extreme extension, he decided to unite the lower end of the tendon with the tendon of the extensor carpi radialis longior. A button-hole opening was made in the latter, and the two tendons united by means of a metallic suture. The patient subsequently suffered from a phlegmon of the back of the hand, but finally made a good recovery, and can now make use of her thumb. The metallic suture did not come away till six weeks after the operation.

M. Tillaux remarked that cases in which anastomosis of tendons is produced are rare, but added that he had performed, in the preceding week, an operation similar to the one performed by M. Duplay.

Treatment of Spasm of the Glottis (*The Medical Record*, February 10, 1877).—The attacks of spasm of the glottis are much more violent than those of false croup, being accompanied by contraction of the muscles of respiration, especially of the diaphragm, and sometimes even by general convulsions. In the treatment of this affection there is rarely time to employ the various methods mentioned in the books, such as electricity, frictions, chloroform, etc., and consequently the plan proposed by M. Charon seems to be all the more practical. This physician states that inhalations of ammonia rarely fail to cut short the attack. He advises mothers, who have children subject to attacks of spasm of the glottis, always to carry a bottle of ammonia with them. He cites the case of the wife of a physician, who followed this advice, and whose child always rapidly recovered from the spasm with the help of the ammonia. Unfortunately, one day she did not have her flask with her, and while she was looking for it the child died asphyxiated.

Hydrophobia (*The Lancet*, February 3, 1877).—Dr. Joseph Coats makes the following remarks relative to his examination of the pathological condition in two cases of hydrophobia. The conditions related seem to indicate that there was a more or less persistent irritation in the neighborhood of the scar, presumably caused by the virus introduced by the teeth of the dog. This virus had been absorbed, and the condition of the vessels near the scar, described above, may or may not be connected with this process of absorption. The so-called period of latency is probably the time during which the virus remains local, and the great differences in this period are quite consistent with what we find in other diseases. In local tuberculosis, for instance, the disease may remain local for years, or it may suddenly become generalized, and an acute tuberculosis develop, this being due to the infective material of tubercle finding its way into the general circulation. Just as tuberculosis may remain local, so, probably, may hydrophobia. But when the virus has got into the blood-vessels it will be carried to the various parts of the body. The lesions found in the nervous system in both these cases are evidence of irritation of the blood-vessels, and it is to be presumed that wherever the blood-vessels are delicate they will be similarly irritated and give rise to similar lesions. This general irritation may explain the fever which seems to be always present in hydrophobia. It need not surprise us, supposing a lession of this kind to exist in various organs, that the symptoms are yet mainly referable to the central nervous system. A lesion which will produce almost no effect in the liver might be a very serious one in the central nervous system. So is it, for instance, with tubercles, which may exist in myriads in the liver without any symptoms to speak of, but in the pia mater they produce tubercular meningitis. I have been, therefore, prepared to find lesions analogous to those in the nervous system in other organs, and I find that in the literature of the subject there are references to such lesions. I find, moreover, that in a dog which was killed because of hydrophobia, and which I have not yet fully investigated, there are lesions of a kind similar to those described in other parts as well as in the nervous system. This disease, hydrophobia, may, I think, be contrasted in its pathology with tetanus. In tetanus we have a definite irritation of the nerves connected with the injured part, and in several thoroughly-investigated cases there has been an actual inflammation described.

In hydrophobia the nerves do not seem to be specially involved; for, though there are abnormal sensations in the part, these appear to be rather of the nature of an indefinite stinging or peculiar feeling. In the above case the nerves of the part seemed to present nothing abnormal. Hydrophobia seems, therefore, to be rather an infective disease. The virus is introduced into the skin, and may possibly go no further, producing only irritation there. But getting into the general vascular system, it produces lesions which seem to be immediately related to the blood-vessels. These lesions in the central nervous system seem to be the causes of the peculiar symptoms in this disease.

MISCELLANY.

THE Medical Department of the University of Pennsylvania has greatly increased its teaching facilities by organizing a corps of young teachers who lecture during the spring months. The lecturers and subjects are as follows: Dr. H. Lenox Hodge, *Regional Anatomy*. Dr. C. T. Hunter, *Operative and Minor Surgery*. Dr. De Forrest Willard, *Orthopedic Surgery*. Dr. J. W. White, *Venereal Diseases*. Dr. R. G. Curtin, *Physical Diagnosis*. Dr. C. K. Mills, *Electrical Therapeutics*. Dr. John Guitéras, *Symptomatology*. Dr. D. Bray, *Operative Obstetrics*. Dr. Elliot Richardson, *Practical Obstetrics*. Dr. Louis Starr, *Practical Pharmacy*. Dr. Henry Chapman, *Experimental Physiology*. Dr. S. D. Risley, *Ophthalmoscopy*. Dr. E. O. Shakespeare, *Refraction and Accommodation and Operative Surgery*. Dr. J. H. C. Simes, *Histology*. Besides lectures by these gentlemen there are two daily clinics in the hospital. In the afternoon, lectures by the Auxiliary Faculty. The lectures on Botany, in this faculty, are being given by Prof. J. T. Rothrock, vice H. C. Wood, resigned; and on Hygiene, by Dr. Jos. G. Richardson, vice Prof. H. Hare, temporarily disabled by severe illness.

With all this well-directed activity, it is no wonder that there are more students about the University this spring than ever before at the same season. Instead of the deserted wilderness of the olden time, the building is a busy hive.

During the last year there have been treated at the University Hospital (Medical Department, University of Pennsylvania) 5026 outpatients and 657 in-patients. Of these last a very large proportion have been cases of severe injury, besides many chronic affections requiring operation, so that the surgery of the service is very active. The average cost of each patient per day was $1.43; the total expenses of the hospital being $26,755 70.

IT is reported that the Jefferson College Hospital is to be opened about the 1st of May; but we suspect that not much work will be done there before the autumn. The staff has been organized as follows:

Surgeons.—Drs. John H. Brinton, F. F. Maury, R. J. Levis, S. W. Gross.

Physicians.—Drs. J. Solis Cohen, J. C. Wilson, J. B. Roberts, O. P. Rex.

Ophthalmologist.—Dr. Wm. Thomson.

Pathologist.—Dr. Morris Longstreth.

Gynæcologist.—Dr. Frank Getchell.

THE Twenty-Eighth Annual Session of the Medical Society of the State of Pennsylvania will be held at Harrisburg, Wednesday, June 13, 1877, at 3 P.M.

THE Twenty-Eighth Annual Session of the American Medical Association will be held in the city of Chicago, Ill., on Tuesday, June 5, 1877, in Farwell Hall, at 11 A.M.

A DOUBTFUL COMPLIMENT.—The March number of the *Medical Eclectic* contains a long biographical sketch, with portrait, of Dr. J. Marion Sims.

THE rate of illegitimacy is rather increasing than decreasing in Scotland: in seven counties during the last quarter it exceeded 12 per cent, and in some places reached nearly 18 per cent.

WITH the *New York Medical Record* looking after the country, and the *Philadelphia Medical Times* looking after the *New York Medical Record*, we sleep once more peacefully.—*Louisville Med. News.*

A MUSEUM of Hygiene is to be established in the University of London as a monument to Prof. Parkes. Nearly four thousand dollars have been subscribed.

THE *Philadelphia Medical Times* maintains its standard of excellency.—*London Medical Examiner.*

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM MARCH 25, 1877, TO APRIL 7, 1877, INCLUSIVE.

DE GRAW, C. S., ASSISTANT-SURGEON.—To report to the Commanding Officer, Department of the South, for assignment to duty. S. O. 63, A. G. O., March 24, 1877.

JESSOP, S. S., ASSISTANT-SURGEON.—Assigned to duty at Edgefield, South Carolina. S. O. 64, Department of the South, April 5, 1877.

AZPELL, THOMAS F., ASSISTANT-SURGEON.—Relieved from duty at Fort Columbus, N. Y. H. S. O. 69, A. G. O., April 2, 1877.

MOFFATT, P., ASSISTANT-SURGEON.—Assigned to duty at Fort Foote, Md. S. O. 74, Division of the Atlantic, April 3, 1877.

EWEN, C., ASSISTANT-SURGEON.—Assigned to duty at Madison Barracks (Sackett's Harbor), N. Y. S. O. 70, Division of the Atlantic, March 28, 1877.

PORTER, JOSEPH Y., ASSISTANT-SURGEON.—Granted leave of absence for twenty days. S. O. 61, Department of the South, March 29, 1877.

SHUFELDT, R. W., ASSISTANT-SURGEON.—When command leaves Indianapolis, to proceed to Fort McHenry, Md., complete his unfinished business, and then comply with orders assigning him to duty in Department of the Platte. S. O. 68, Division of the Atlantic, March 26, 1877.

PERLEY, H. O., ASSISTANT-SURGEON.—When command leaves Jeffersonville, to comply with orders assigning him to duty in Department of Dakota. S. O. 68, c. s, Division of the Atlantic.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, APRIL 28, 1877.

ORIGINAL LECTURES.

CLINICAL LECTURE ON HEREDITARY AND CONGENITAL SYPHILIS.

BY DR. ALOIS MONTI,

Vienna.

Reported by C. W. DULLES, M.D.

HEREDITARY syphilis, which formerly was a comparatively rare disease, occurring about once in a thousand cases, has in the last years increased enormously in frequency, so that in Vienna the proportion has risen to one in a hundred cases of disease in children.

Cutaneous syphilis develops in three forms,—syphilis maculosa, syphilis papulosa, and syphilis pustulosa.

Syphilis maculosa is not a disease of intra-uterine life, but makes its appearance within the first, second, or third month of extra-uterine life. Before this, its coming may be preceded by a peculiar cachexia, presenting a cadaveric appearance, with pale, dull skin, which is followed by pigment-spots the size of a lentil, coming out first upon the glabella, the eyebrows, the face, and rarely upon the trunk. Then the fully-developed maculæ appear, of a red coppery color and somewhat elevated above the surface. Usually the surface is attacked in different parts successively, and not all at once.

The metamorphoses of maculæ are paling, formation of scales, psoriasis, which is usually more strongly marked on certain parts than on others, *i.e.*, the palms of the hands, soles of feet, the face and skin over joints, and thus after fourteen days, or it may be three or four weeks, the maculæ disappear. Condylomata may be formed where there is present a secretion, on the face, lips, the folds, and the genitals. The moisture macerates the epidermis, and an inflammation of the cutis follows. Whenever in children you find such condylomata at the angles of the mouth, the chin, the genitals, the inguinal folds, or about the anus, you may be quite sure you have not to do with a new disease, but a relapse of one already existing. As a sequel of maculæ may occur considerable indurations, dependent upon some mechanical irritation, which may last months. The macular form of syphilis is the least dangerous, and furnishes the greatest percentage of cures.

Syphilis papulosa.—This develops in intra-uterine life or in the first few days after birth. It appears oftenest on those parts where the skin lies close to the bones, the extensor side of joints, the ankle, knee, hand, elbow, and back, though it may appear on other parts. The arrangement of the papulæ is usually circular or oval: they are elevated above the surrounding surface, have a pale color and an extended border. This form may be mixed with the macular. Its metamorphoses are the same as those of the latter, but usually last longer.

Syphilis pustulosa in the majority of cases develops in intra-uterine life. It is the gravest form, lasts longest, and has the most frequent relapses. It is accompanied with a marked cachexia, and the subjects of it rarely live long. It often goes over into pemphigus, or varicella syphilitica. It may be mixed with syphilis papulosa, but rarely with syphilis maculosa. Its metamorphoses are the bursting of the pustules, with excoriation of the skin, or they may dry into a crust, beneath which pus accumulates and syphilitic ulcers form, or blood may be extravasated in them, and a hemorrhagic pemphigus occur, which is a very severe form.

When hereditary syphilis attacks the mucous membrane, it usually selects the nasal cavity earliest and makes its outset in the first few days after birth, or a child may even come into the world with a coryza. The mucous membrane is dry, and the child breathes through an open mouth. Later a purulent discharge, which may become ichorous, is set up. Papules or ulcers may appear; but I have seldom seen a destruction of the bones.

When the lips are attacked it is usually at the angles of the mouth, or where skin and mucous membrane join. Here may appear maculæ, papulæ, condylomata, or ulcers.

The mucous membrane of the soft and hard palates and of the pharynx are subject to similar forms. So too the larynx, but more rarely. I have seen two cases of this kind which arose in intra-uterine life. Finally the mucous membrane of the vulva and anus belong in this list. In general,

whenever we find the exhibitions of hereditary syphilis upon the mucous membranes we may look upon it as a relapse following an earlier cutaneous form.

Syphilis attacks the lymphatic and glandular systems. A tumor of the spleen is a constant phase. It can usually be found at birth. The greater the cachexia in the child the larger will the spleen be; and it diminishes in size as the condition of the child improves. The affections of the liver are relatively infrequent, but occur in intra-uterine life.

The bones are not usually very markedly affected. They may be thickened in their epiphyses or their diaphyses.

The course of hereditary syphilis is chronic. When an eruption is cured, one must not think the disease is at an end. But it *can be cured.* I have seen such cases, and those who deny their possibility speak from want of experience.

One of the sequelæ of hereditary syphilis is rachitis. I have never seen a case where rachitis did not follow it. Another is hydrocephalus chronicus, which with certain cachexiæ is almost unexceptional. Another is scrofulosis. When one sees chronic periostitis on the long or flat bones, symmetrically distributed on both sides of the body, one should most strongly suspect that syphilis is the cause. Furunculus often follows a pale eruption, and is more painful than dangerous. A peculiar ozæna, as an exhibition of syphilis, may be hard to diagnose from that caused by scrofulosis.

Death, and that very sudden, may be the end of hereditary syphilis. The possibility of this must ever be borne in mind, and parents should be warned of it in every case. Such an issue is most frequent in anæmic or cachectic cases, and its immediate cause is usually œdema of the meninges or of the lungs.

Prognosis.—There are many factors affecting this. The time of the appearance of syphilis is one, for in cases of intra-uterine development it is most fatal, and the later it comes on the more favorable, relatively, is the prognosis. The form is another. Thus, in pustular syphilis it is the most unfavorable, in papular less so, and in macular it is comparatively favorable. The manner of living and the food of the child are points of great moment. Artificially-fed children all die, and only when a nurse of unexceptionable quality can be obtained may one look for a cure. Complications may of course exercise a very unfavorable influence upon the issue. Parents should be warned to let no apparently trifling event go unnoticed, and to submit their children regularly to the supervision of a physician, and this not less than once a month for two years. With such good food, such scrupulous watching, and suitably applied remedies, hereditary syphilis can be cured, but not otherwise.

Therapeutics.—It must be conceded that there are cases where, when every other condition of food and care is fulfilled, medicinal treatment is not required; but these are exceptional. In most cases much depends upon the remedies chosen and their method of application.

The inunction cure is bad for new-born children, as it irritates the skin and may convey too much mercury, thus causing anæmia, which is the little patient's worst enemy. Statistics prove this to be a fact. But it may be used where a rapid action is demanded, as in laryngostenosis, in older children, but not for those under six months of age. I usually prescribe unguenti cinerei,* 3 to 6 grammes, divided into ten parts, and have one or two parts rubbed in daily, according to the age of the child. Salivation, so much feared in adults, is rare in children. I have had half an ounce rubbed in a child without salivation.

Calomel, once used for almost every conceivable children's disease, has been much less employed in more enlightened times. For myself, there are few cases in which I think it applicable. In hereditary syphilis, however, where there is no catarrh of the intestines, I think it finds its most appropriate place. It should be given in very small doses, and never alone. Iron should be joined with it, to combat the anæmia which the mercury tends to bring about. I prescribe—

℞ Hydrargyri chloridi mitis, 0.10 grm.
Ferri lactatis, 0.20 gramme.
Sacchari albi, 3 grammes.
Divide in pulveres tres.

Of this I order one to three powders a day, according to the age of the child.

These give the children green stools and sometimes colic; but this does not hurt them, for it is balanced by the improvement of their rest at night. The medicine

* The ung. hydrargyri of the Austrian Pharmacopœia, which is of the strength of *one part in three.*

should be continued until the eruption is pale or has disappeared. If, however, symptoms of anæmia appear, it should be discontinued instantly and the child put on iron,—say the lactate or the saccharated carbonate.

Corrosive sublimate should never be given to children internally, but used in baths it is very valuable. Especially when added to the calomel, as suggested, does it act promptly and safely. I order—

℞ Hydrargyri chloridi corrosivi, 1 grm.
Ammonii chloridi, 6 grammes.
Aquæ fontis, 200 grammes.—M.
To be added to two or three baths.

Thus with ten baths and ten powders one usually sees an eruption disappear.

Corrosive sublimate as a subcutaneous injection is not as well borne by children as by adults. Indurations and abscesses are more apt to occur; and, besides, mothers object to seeing their children "*stuck*," as they call it, every day. I use it only in cases where a quiet and unobtrusive line of treatment is required to preserve the peace of a family,—where, for example, one parent may be conscious of guilt and desire that the other shall not discover it.

As to dose, I have a solution by which I divide 7 centigrammes in ten syringefuls and give a quarter or a half of one, watching how it is borne.

The albuminate or peptone of mercury is better for this purpose than the bichloride.

Iodine has been used in this disease, but, while it may effect good results, its action is too slow.

For the last three years I have used with the greatest success the ferri iodatum saccharatum.* It has never affected the nutrition of my patients, and they look fresh and blooming after taking it continuously for considerable periods.

I prescribe—

℞ Ferri iodati saccharati, 0.20 to 0.40 grm.
Sacchari albi, 3 grammes.
Divide in pulveres decem.

Of these I give three to five powders a day, and continue their use until the tumor of the spleen and the anæmia have disappeared. The peculiar advantages of this remedy are that it can be given for a long time without ill results, under its use relapses are less frequent, and when they do occur they are of a lighter grade.

The protiodide of mercury, in doses of one centigramme, is sometimes used with good results; but many children do not bear it at all well.

Certain phases of congenital syphilis demand local treatment. For example, the serious obstruction to nasal respiration must be combated by cleansing and clearing of the cavity with injections.

Ulcers I treat with a salve of red precipitate, prescribing—

℞ Hydrargyri precipitat. rubri, 0.50 grm.
Unguenti emollientis, 10 grms.—M.
Ft. unguentum.

For condylomata, on the genitals or face, I order—

℞ Aquæ calcis, 50 grammes.
Hydrargyri chloridi corrosivi, 0.10 gramme.—M.

Charpie dipped in this is to be laid upon the condylomata and renewed three times a day. But a better treatment I believe to be dusting them with calomel and painting with chlorina liquida.† One may also use the red precipitate salve of double the strength already named.

Excoriations I pencil three times daily with the following:

℞ Hydrargyri chloridi corrosivi, 0.05 to 0.10 gramme.
Mucilaginis gummi arabici, 50 grms.

As already stated, one of the most important points in the treatment of infantile syphilis is that of food. In regard to this there are certain fundamental principles which must be observed. *If the child is less than a year old it must have the natural food, woman's milk.* If this cannot be secured, death is almost inevitable. It is often very difficult to secure. The mother being syphilitic, her milk will be poor, and yet it is better than artificial food. In such cases the best we can do is to treat the mother for her disease at the same time we are treating the child. It has been of late asserted that there is no danger of a child communicating syphilis to a healthy nurse, provided there are no excoriations on her nipples, or local exhibitions of syphilis in or about the mouth of the infant. This is true, and in a hospital where child and nurse are under daily supervision it is possible to have the plan pursued without infection. It has been and is done in a St. Petersburg hospital. But in private practice it presents almost insuperable diffi-

* This contains one part ferri iodidi in five parts.

† This is the aqua chlorinii of the Austrian Pharmacopœia.

culties; in view of which I make it an invariable rule, under such circumstances, to confide to the nurse the diagnosis of syphilis. I tell her that if she carefully watches the condition of her breasts and the child's mouth there is comparatively little danger; that at the same time it is possible she may contract the disease, and that if contracted it *may be cured*, but that it *may prove incurable*. In the face of this there are women who for a certain amount of money will take the risks; but a physician pursuing such a course has discharged his duty fully, and cannot be blamed, nor blame himself, if afterwards the worst happens.

If a child cannot obtain natural food, recourse must be had to artificial. Of these *starches must be avoided*, and the various articles containing starch are unsuitable. The only substitute that can be entertained is cow's milk, which must be given under the most careful rules governing its use in general. To this veal broths may be added after the first few months are passed.

Even if a child is at the breast we may often, by the third or fifth month, advantageously supplement this with good soups, and, by the sixth or eighth month, with meat. The point which must never be lost sight of is the nutrition of the subjects of infantile syphilis.

The treatment of the sequelæ of syphilis is to be conducted on most careful general principles. Furunculi must be opened early. Rachitis I treat with an invigorating diet, salt baths, iron baths, and cod-liver oil. In ozæna, lymphatic-glandular enlargement, periostitis, I always use the syrupus ferri iodidi and continue it for a long while, until the child looks well.

Such are, in brief, the most important points in the management of children with congenital or hereditary syphilis which now occur to me.

TREATMENT OF CHOREA (*The Practitioner*, February, 1877).—M. Guérin, of Paris, at the conclusion of a pamphlet on chorea, makes the following observations. If consulted at the commencement of an attack of chorea, when it is, so to speak, in the acute stage, dry cupping should be applied to the vertebral column. Attention should then of course be paid to the cause; and finally chloral, bromide of potassium, arseniate of soda, sulphur baths, and gymnastic exercise will often serve to complete the cure.

ORIGINAL COMMUNICATIONS.

HAVE ORGANIC NERVOUS DISEASES THEIR ORIGIN AND FREQUENCY IN OUR AMERICAN LIFE?

BY TRAILL GREEN, M.D.

Read before the Medical Society of Northampton County, Pa., at its meeting at Bath, August 23, 1876.

So much has been written on the strain upon the nervous system in our American life that we may now ask the question whether there is any foundation for the opinion held by many medical and by non-medical men, viz., that the hurry in and exclusive devotion to business have produced serious nervous diseases of an organic nature. It has been for some time past a common belief that apoplexy and paralysis are much more common than they were in former years, and that those who break down suddenly in the midst of activity, and often quite early in life, do so because of excessive brain-work.

We think the past generation of men in our own and other lands were as earnestly and constantly devoted to business as the present, and did not believe that they were injured thereby. Dr. John Mason Good is an example of one in professional life, and in the pursuit of literature, who labored incessantly, and died aged sixty-two of an inflammatory affection (cystitis), with his nervous system in a healthy state. His maxim was like that of Dr. E. D. Clark, who was also eminent for his indefatigable application: "I have lived to know the great secret of human happiness is this: Never suffer your energies to stagnate. The old adage of 'too many irons in the fire' conveys an abominable lie. You cannot have too many: poker, tongs, and all,—keep them all going." Whatever may have happened to the "poker and tongs," it is evident these men did not believe that they who handled them received any injury.

One so eminent as was Dr. Good as a physician in active practice, so distinguished also as a philosopher, scholar, and linguist, must have been busily occupied to reach a position so exalted in these various pursuits.

John Wesley is a notable example of constant application to mental pursuits, and of great energy in labor. He wrote in his diary on his eighty-sixth birthday as follows: "How little have I suffered yet by

the rush of numerous years! I am not conscious of any decay in writing sermons, which I do as readily, and I believe as correctly, as ever." Many of his generation, as well as of the present, were constantly devoted to mental and physical employments, whose nervous system remained free from disease to a very advanced age.

We name one from the other learned profession, the late Horace Binney. Judge Strong, in his discourse illustrative of the life and character of Mr. Binney, says, "He was immersed all-his life in a flood of occupations, and he lived with unimpaired mental faculties, and generally in the enjoyment of good health." He died in the ninety-sixth year of his age. Dr. Beard fixes the average age of five hundred brain-workers to be sixty-four years.

I have long doubted whether our profession holds correct views of the origin of apoplexy, palsy, and softening of the brain, and I doubt whether such cases are now more numerous than they have been in the past, in proportion to the population. I was impressed many years ago in reading in the Gospels and Acts of the Apostles, by the frequency of paralysis among a quiet and doubtless for the most part an agricultural and pastoral people.

History alone can lead us to the truth with reference to the occurrence of these diseases in early times. We read, Matthew iv. 24, that they brought to Jesus those that were lunatic, and those that had the palsy. These lunatics were not persons possessed of the devil, for such are mentioned in the same verse. Philip found "*many* taken with palsies" at Samaria. Single cases are mentioned, Matt. ix. 2, Mark ii. 3. The servant of the centurion at Capernaum had palsy, Matt. viii. 6. The case of Eneas was a chronic one, for he had kept his bed for eight years, "sick of the palsy," Acts ix. 33.

Lunacy and paralysis, we see then, were quite common among the Hebrews in Palestine in the time of the Saviour and the apostles.

For a period of fifteen hundred years we have abundant evidence in medical works of the occurrence of these diseases.

The Aphorisms of Hippocrates (B.C. 460) show that he must have met with many cases of apoplexy. Aph. vi. 57: Persons are most subject to apoplexy between the ages of forty and sixty. That it is a disease of old persons: Aph. iii. 31. That it occurs most frequently in winter: Aph. iii. 23. It is impossible to remove a strong attack of apoplexy, and not easy to remove weak attacks: Aph. ii. 42.

We may be somewhat surprised to find in his Epidemics (book 1, vol. i. 361, 362, Sydenham Soc. ed.), after giving an account of the meteorological condition of Thasus in the summer, autumn, and winter, that he says, "Paraplegia set in, and attacked many, and some died speedily; and otherwise the disease prevailed much in an epidemical form, but persons remained free from all other diseases."

Galen (A.D. 131), in his Commentary, remarks that the attacks of paralysis were brought on by the cold winds of the winter succeeding to a humid autumn. We have never had an epidemic like this.

Aretæus, who lived in the second century, saw enough of apoplexy and paralysis to qualify himself to write clearly upon their nature and treatment. His remarks on blood-letting are worthy of attention in these days. He says, "It is an assistance in the treatment, provided there be no mistake as to quantity; but the amount is difficult to determine, since if you take too much you dispatch the patient at once. But, if the quantity be inferior to the cause, you do little good with this the great remedy, for the cause still remains." His remarks on cupping, wet and dry, and on purgatives in apoplexy, are equally good. He was also familiar with paralysis, and gives six causes of this disease, "a wound, a blow, exposure to cold, indigestion, venery, and intoxication." He mentions likewise "the vehement affections of the soul, astonishment, fear, dejection of spirits, and, in children, frights."

We may refer also to Galen, to Aetius, A.D. 550, and to Paulus Ægineta, middle of seventh century, whose descriptions of these diseases prove their professional acquaintance with them to have been equal to that of physicians of these times, if we except the better knowledge of their pathology which we have.

The commentator on the works of Paulus Ægineta, Francis Adams, says, "Avicenna treated the subject of apoplexy and paralysis in a very masterly manner.

"It is impossible to admire too much the brief but comprehensive account of apoplexy and paralysis given by Aretæus. He states decidedly that there is sometimes a loss of motion alone, and sometimes of

sensibility; the reason of which he supposes to be, that the sensatory and motory nerves are distinct from one another. This is the germ of the theory fully expanded afterwards by Galen. It appears, indeed, from the anatomical works of Ruffus, that the famous Erasistratus had attempted a similar classification of the nerves. Galen, however, has the merit of fully establishing the truth of the theory; and all subsequent writers on physiology stated it in nearly the same terms that he does, until ancient authority in medicine and its cognate sciences came to be despised. Aretæus states it as a general rule, that when one side of the brain is affected, the opposite side of the body is paralyzed; but when the disorder is in the spinal marrow, that the affection of the spine and the paralysis are on the same side. This arises, he supposes, from the decussation of the cerebral nerves; and this explanation must be admitted even now to be tolerably correct. The causes of paralysis, as stated by him, are falls, blows, cold, indigestion, debauchery, intoxication, and violent emotions of the mind. His treatment is as follows: he inculcates, in the strongest terms, that the great remedy for apoplexy is venesection; and that the only difficulty, in general, is to determine the extent to which it is to be carried. He forbids the operation, however, when the senses are oppressed with much cold and torpor. Cœlius Aurelianus enumerates nearly the same causes of apoplexy and paralysis as Aretæus, namely, excessive heat, cold, indigestion, debauchery, and injuries of the brain. The season of winter is justly said to predispose to the disease. It is seated, he says, principally in the head. His treatment is nearly the same as that of the followers of Hippocrates and Galen, namely, emollient applications to the head and limbs, venesection, abstinence, clysters, cupping the back part of the head, and the bath of oil. Of paralysis he treats at greater length, and with much precision and judgment. He mentions nearly the same causes of it as of apoplexy, and remarks that it produces loss of sensibility, or of motion, or of both. He observes, in particular, of the tongue, that it may retain the power of deglutition although that of speech be lost. He details all the phenomena of partial paralysis with surprising accuracy; and, at the present day, we do not know a work on the subject that contains so much information.

"Rhazes states decidedly that the skin of paralytics may retain its sensibility, although the muscular motion be lost. In a word, he maintains that the nerves of sensibility and motion may be affected separately. He remarks, however, that a part can scarcely retain its power of motion when the sensibility is entirely gone. He says that he had known several cases of paralysis cured by natural diarrhœa. His general remedies are bleeding, purging, and rubefacient applications."—Francis Adams, Paulus Ægineta, vol. i. 398, 401.

The Aphorisms of Hippocrates, so true at the present day, could not have been written by one who had not had personal knowledge of a large number of cases of apoplexy and paralysis, a larger number, we think, than falls within the observation of the average practitioner of the present day. The writings of those who succeeded him prove that they also were quite familiar with these diseases.

Rhazes, A.D. 900, was familiar with the disease among his Arabian countrymen.

To enumerate all who have written upon these diseases would be to name all who were eminent in our profession before the Christian era, and for all the centuries following, down to the present time.

Theophrastus, Aretæus, Aetius, Oribasius, Alexander, Actuarius, Cœlius Aurelianus, Celsus, Nonus, Serapion, Haly Abbas, and De Haen.

With reference to the prevalence of these diseases in recent times I am happy to find very satisfactory evidence in the valuable mortuary statistics recently published by the New York Mutual Life-Insurance Company. The experience of the company extends through a period of thirty-one years, from 1843 to 1874.

"The percentage of apoplexy on the total mortality is 5.88." (Page 37.) This is less than the percentage of deaths from accidents and injuries, which is 6.83." (Page 43.)

"The deaths from diseases of the nervous system were eight hundred and forty-nine, embraced principally under apoplexy, paralysis, and softening, congestion, and diseases of brain. We believe these terms are used synonymously by many physicians, and should, therefore, be calculated together in one general table. However, we have as yet considered them apart in most cases. This class of diseases *appears* to have increased somewhat, though not

materially, in number during the last ten years, probably because more elderly persons are insured than formerly." (Page 13.)

The percentage on the whole mortality of other diseases of the brain and of the nervous system is 10.38, made as follows:

Congestion of brain . . .	2.11
Paralysis, softening and diseases of brain	5.38
Epilepsy and convulsions . .	.61
Other diseases of the nervous system	2.28
	10.38

We may deduct from this table the cases of congestion of the brain, epilepsy, and convulsions, and other diseases of the nervous system: we then have the percentage on the whole mortality of paralysis, softening and diseases of the brain 5.38. Adding the percentage of epilepsy, 5.88, the percentage of the diseases under consideration is 11.26. This compares favorably with diseases of the lungs, the percentage of which is 12.40, and, adding consumptive cases, 17.61, the whole percentage is 30.01.

The percentage of the diseases of the digestive organs is 9.34. If we add to these the cases of dysentery, diarrhœa, and cholera, we find the percentage of these diseases on the whole mortality 13.18.

The percentage of zymotic disease is 18.16. The reporter states (page 13) that apoplexy gives the largest percentage among the Scotch, and the smallest among the Irish, and the same holds good for diseases of the nervous system in general.

The percentage of Scotch policy-holders is	13.98
German	8.58
Natives of the United States . .	5.49
Irish	2.94

Further, the statistics are arranged and reported by Dr. G. S. Winston and E. J. Marsh, who have had experience in work of this kind.

Mr. W. H. C. Bartlett, the actuary of the company, whose report accompanies that of the physician, submitted the work in all its details to the critical examination of a person whose eminent mathematical attainments, intimate acquaintance with vital statistics, and practical knowledge of life-insurance would detect whatever of error in principle or inaccuracy of deduction it might contain.

Prof. C. F. McCay, LL.D., was accordingly selected, and reported, "I find the report in perfect accord with my own views in regard to the manner of treating this important matter, and fully concur in the deductions drawn therefrom."

THE PREVALENCE OF NERVOUS DISEASES.

The following is taken from the report of a paper read by Dr. Althaus before the Royal Medical and Chirurgical Society of London, January 25, as given in the *Medical Times and Gazette*, February 12.

The paper was based on an analysis of the vital statistics contained in the British Registrar-General's reports from 1838 to 1871. The points studied by the author were the frequency of nervous diseases, whether or not they are on the increase, their relations as to race, sex, age, and locality. As to the first of these, he found that for six successive periods of five years each, the death-rate from all forms of nervous diseases had varied only between 26 and 28 to each 10,000 of the population. Taking, however, the number of deaths from nervous diseases as compared with those from all other causes, we find a still more constant ratio, the average for thirty years being 12.26 of the whole. This average clearly shows that for thirty years (a period in which so much has been said of the increase of these diseases) there has been no increase of nervous diseases in England. We give the remainder of the article, though it does not apply to the point in discussion, but because it gives valuable statistics of other nervous diseases.

As compared with the relative mortality from other disorders, he found that nervous diseases occupied a fourth place among the maladies destructive to human life; zymotic affections heading the list with 22.90 per cent.; next, tubercular disorders, with 15.94 per cent.; followed closely by respiratory troubles, with 14.16.

As regards the constancy of the ratio of nervous diseases to other affections, and their relative ratio one to another, it was found that there had been an increase in all diseases of the brain and spinal cord, and their membranes, with the exception of hydrocephalus, and also of apoplexy and paralysis. Delirium tremens appeared to be decreasing, while an increase was perceptible for chorea and tetanus. Epilepsy had decidedly diminished for the past ten years, while the mortality from insanity was increasing. Infantile eclampsia showed the greatest decrease, its mortality having diminished 18 per cent. in thirty years,

but the increase in other nervous diseases occurring at the same time had left their proportion of the whole mortality unchanged. They could be ranged, according to their fatality, as follows: convulsions, 48.70; apoplexy, 16.19; paralysis, 15.96; disease, etc., 6.98; cephalitis (including all inflammatory diseases of the brain and cord and their membranes), 6.64; epilepsy, 3.79; insanity, 1.00; delirium tremens, 0.83; tetanus, 0.26; and chorea, 0.10.

The investigations seemed to show that the common idea that these affections are more common among inhabitants of towns than among dwellers in rural districts is erroneous. The extraordinary prevalence of nervous diseases in Wales could not well be explained. Dr. Althaus suggests that the Celtic race is less resistant to such influence than the Saxon.

As regards the influence of sex, it was found that the mortality from these disorders was always greatest among males, the ratio for a quarter of a century being 12.94 against 11.62. The males died more from cephalitis, delirium tremens, infantile convulsions, tetanus, epilepsy, and disease of the brain, while chorea and insanity were more frequent in females, and apoplexy and paralysis were about equally fatal to both sexes. The entire percentage of deaths amounted to 54 for males and 46 for females; thus showing an excess of 8 per cent. for males.

The relation of age to the prevalence of these affections is as follows: there is an immense maximum in the first year of life; then a rapid descent until four years of age, but still the mortality in the first lustrum is greater than that of all other periods taken together. From five to thirty years of age the fatality from nervous diseases is slight; at thirty-five there is a rise, which becomes large at sixty, and reaches its maximum at seventy. This maximum is, however, only one-tenth as great as that of infancy. The first maximum is due to convulsions, the second to apoplexy and paralysis.

The relative mortality to frequency of the different diseases was discussed with the following results: of insanity there were eighty-eight living cases to one death; the prevalence of cephalitis Dr. Althaus thought only slightly higher than its mortality; in paralysis the deaths were about one to twelve; chorea was fatal in about 1 per cent.; delirium tremens about 25 per cent.; in tetanus about one in three recovered; in epilepsy about 2 per cent. of cases were fatal. Hysteria, though very prevalent, was hardly ever fatal.

Dr. Althaus closed his paper with some remarks on the progress and prospects of therapeutics. He thought that we will be able in the future to considerably reduce the mortality of such diseases as convulsions, epilepsy, and tetanus. (*Journal of Nervous and Mental Diseases*, July, 1876, pp. 518, 519.)

Our own people, it appears, are less subject to apoplexy than emigrants from other lands, with the exception of the Irish.

The percentage of deaths from insanity on the whole mortality is 0.537.

It must be admitted that the "mortuary statistics" from which we have gathered the figures we have used in this report furnish important and reliable matter in vital statistics. The number of persons insured by the company which has furnished the statistics is 101,967. These are all carefully examined before a policy is granted; and the reports of deaths are obtained under the oath of the reporter. It will be seen, therefore, that we are made as sure of correct statistics as it is possible to be.

We subjoin a table of the condition and ages of patients of whom we have had knowledge, though all of them were not under our own care and treatment. They were met with in a population which has grown from six to ten thousand during the time of observation, and several of them occurred from two to seventy miles beyond this concentrated population, but they died here or were known personally to the reporter.

Of these cases twenty-two were palsy, nineteen apoplexy, and eight softening of brain. Thirty had reached, or passed beyond, the seventieth year, and in none could we discover as a cause of disease too great devotion to business, or any mental strain. We would rather conclude from all our observations that the withdrawing from business after great devotion to it frequently acts unfavorably,—a sudden stopping being more likely to give a great shock than motion continued moderately while the machinery is capable of motion.

Mr. Burton says, "Employment, which Galen calls 'Nature's physic,' is so essential to human happiness that indolence is considered the mother of misery," and, we think, very often of disease.

Table.

Occupation.	Ages.																								
	54	55	56	58	60	62	63	65	67	68	69	70	71	72	74	75	76	77	78	79	81	83	84	87	88	89	92
Editor															1												
Millers		1																	1								
Druggist				1																							
Justice of Peace														1													
Blacksmiths									1													1	1				
Lawyers											1						1										
Clerks								1		1																	
No occupation					1		1					1															
Railroad watchman											1																
Cabinet-maker												1															
Quarryman												1															
Merchants	1																										
Farmers										1				1													
Currier																											
Grocer								1																1			
Boatmen			1				1																				
Laborer																1											
Females					2	1	2		1	2		3	1		2		3	1		1	1				1	1	1
	1	1	1	1	3	1	4	2	2	4	2	6	1	2	3	1	4	1	1	1	1	1	1	1	1	1	1

REPORT OF TWO CASES OF MEASLES.

BY E. L. B. GODFREY, M.D.,

Camden, N.J.

IT is generally conceded that an attack of measles renders the system ever afterwards insusceptible to its poison. A case, however, which will furnish an exception to this rule, has fallen under my observation, in a boy four years of age, who, having had a well-marked attack of the disease and communicated it to two other members of the family, was again attacked six weeks afterwards, the eruption reappearing in a much more marked and copious form than in the first attack, and the disease again passing through its regular course. The first attack was attended with an unusual severity of the catarrhal symptoms, which has generally been the case in the epidemic that has visited us; but the recovery was complete, so much so that the patient after his recovery was taken on a visit to the country. Four weeks after the attack, two other members of the family began to show manifestations of the disease. During their sickness our patient returned from his country visit, and was allowed to play in the room in which the other children were confined. About the time they had thoroughly convalesced from the disease, he sickened with pneumonia and was confined in the same room.

On the third day of the pneumonia, the eruption of measles reappeared in a much more marked and copious form, especially on the forehead, face, and extremities, pursued its ordinary course, modified the lung-trouble, and eventuated in recovery. The second attack was unquestionably due to the fact of the patient being subjected to the influence of the poison while the vital forces were in a depressed condition induced by the inflammation of the lungs, and thus rendered less able to resist the effects of the poison.

Through the kindness of Dr. Schenck, of this city, I have the privilege of mentioning a case met with in his practice, which will illustrate in a very marked degree the fact that types of different diseases may coexist in the system, but that the stronger will run its course before symptoms of the other manifest themselves. He vaccinated with animal virus a child which together with two other members of the family, as was ascertained after the vaccination, had been subjected to the influence of the poison of measles. The vaccination produced its proper effect, and was attended with a high degree of local inflammation and considerable fever. Five days after the vaccination the eruption of measles appeared, and in two of the children pursued its regular ordinary course, while in the one vaccinated the eruption only appeared on the lower extremities, from the knees to the ankles, and on the upper extremities, from the elbows to the wrists. The eruption disappeared after remaining the usual time. After the vaccination had

run its course, the eruption reappeared in a very marked form, being ushered in by convulsions, and pursued its regular course, save that the catarrhal symptoms were very slight.

ON THE VELOCITY OF NERVOUS ACTION.

BY B. F. LAUTENBACH, M.D.

WHEN Helmholtz, nearly thirty years since, measured the rapidity with which the contraction of the muscles followed an irritation of the nerve, considerable excitement was caused in the scientific world, as previously physiologists had been content with considering all nervous action to be produced by an ether. This "nervous ether" was said to act so rapidly when the nerve was irritated that the time which expired up to the contraction of the muscles was supposed to be unmeasurable.

This is really so as long as we depend on our unaided senses to measure the time; but these, as is well known, cannot determine even, relatively speaking, large differences of time, as is beautifully demonstrated in the familiar experiment where one of a rapidly revolving circle of pictures becomes distinctly visible and seemingly stationary when a flash of electrical light is passed through the room.

To Helmholtz belongs the credit of first determining the method by which the *latent time*, *i.e.*, the time which expires after the irritation, before the muscles begin to contract, could be measured. He made use of two currents, the one to measure the time and the other to irritate the nerve, which currents were made and broken at the same time by means of a mercury connection, and found that the conduction occurred in the *dead* sciatic nerve of the frog at the rate of 26.4 metres per second, while for the nerves of man he and other experimenters found the velocity to vary from 32 to 61 metres in the second.

The experiments of Helmholtz, Helmholtz and Baxt, and others,* were made solely—excepting of course those made on the median nerve of man, which, owing to the impossibility of directly irritating the nerve, and the contradictory results obtained, cannot be considered as conclusive—on the prepared sciatic nerves of frogs, *i.e.*, nerves which, with the gastrocnemii, were separated from the rest of the body. Repeating these, I was, almost without exception, able to confirm the results obtained by Helmholtz. One exception indeed occurred, where, in the beginning of the experiment, an irritation of the plexus of a nerve thus prepared occupied less time to produce a muscular contraction than an irritation of the nerve nearer the muscle, but after the second irritation the opposite result was obtained.

Until the present time no experiments have been published in which the circulation of the blood still continued in the nerve, and no doubt existed as to the correctness in applying the results obtained on the prepared nerve to the normal nerve. The author recently assisted Professor Schiff in a long series of similar experiments on frogs and dogs in whom the circulation in the nerve was not interfered with, and found in the beginning of almost all the experiments the *latent time* to be less when the plexus was irritated than when the nerve was irritated, *i.e.*, an irritation of a portion of the nerve near the centre occupied considerably less time to produce a muscular contraction than an irritation applied to a more peripheral portion of the same nerve.

To explain this paradoxical result the statement of Wundt could be brought forward, that when the strength of the contraction increases the *latent time* diminishes and consequently may even become negative. This objection at first sight seems very plausible, as the author repeatedly found, as did also Budge nearly twenty-five years ago, that the contractions following irritation of motor nerves increase in strength as we pass from the periphery to the centre. But in a series of nearly eighty experiments the author found† that the *latent time* increases and decreases entirely independent of the strength of the contractions, and also that the latter may remain the same while the *latent time* may increase or decrease.

In order to be absolutely certain that this explanation was not true, I made another series of experiments in which alter-

* Helmholtz, Müller's Archiv, 1850, p. 276.
" " " 1852, p. 199.
Helmholtz, Berl. Monatsber., 1857.
Helmholtz u. Baxt, Berl. Monatsber., 1867 u. 1870.
Wundt, Unters. z. Mechanik d. Nerven u. Nervencentren, 1 Abth., 1871.
Aeby, Fortpflanzungsgeschwindigkeit d. Reizung in d. Muskeln, 1862.

† Arch. de Physique et Histoire naturelle, Avril, 1877.

nately nerve and plexus were irritated, and was able in quite a number of experiments to obtain curves in which the strength of the contractions was the same for both nerve and plexus, yet the *latent time* for the latter was the shorter. A number of times this was also found when the strength of the contraction following irritation of the plexus was much less than that following irritation of the nerve-trunk.

Probably the true explanation of these curious results can be found in the difference, to which I drew attention in a recent number of the *Philadelphia Medical Times*,* between the receiving and conducting powers of the nerves, that the former increases for the *motor* nerve as we proceed from the periphery towards the centre.

For those who are interested in this subject, I append several experiments, in which it will be seen that frequently an irritation of the nerve at the plexus can occupy less time to produce a contraction of muscle than an irritation of a more peripheral portion of the same nerve. The irritations were made by means of the sliding-induction-apparatus of Du-Bois Reymond, and their strength is given in centimetres, o being the full strength.

The time was determined by means of a diapason oscillating one hundred times in a second, and is given in the experiments in the number of oscillations which occurred after an irritation before the muscle commenced to contract,—one oscillation being equal to $\frac{1}{100}''$, two oscillations to $\frac{1}{50}''$, etc.

Experiment 1.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Plexus.	Nerve.			
1	cent.	9 cent.	5.5 mm.	$2\frac{1}{16}$ sc.	N. sciatic. of a Rana temporaria.
2	11.		5.5	$2\frac{1}{16}$	
3		8.5	6.5	$2\frac{3}{4}$	
4	10.5		6.2	$2\frac{5}{8}$	
5		8.	6.9	2	
6	9.5		6.5	$2\frac{1}{4}$	
7	8.		6.6	$1\frac{15}{16}$	
8		7.5	6.6	$2\frac{1}{16}$	
9	7.5		6.6	$1\frac{7}{8}$	
10		6.5	6.6	$2\frac{1}{16}$	
11	6.5		6.6	$2\frac{1}{4}$	
12		5.5	6.5	$2\frac{5}{8}$	
13	5.5		6.5	$2\frac{3}{8}$	
14		4.	6.5	$2\frac{5}{8}$	
15	4.		6.5	$1\frac{15}{16}$	
16		2.5	6.2	2.	
17	2.5		6.5	$1\frac{15}{16}$	

* Since that article was written, I have found that hyoscyamia under certain conditions will abolish the receiving power of the nerves.

Experiment 2.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Plexus.	Nerve.			
1	11 cent.	cent.	4.5 mm.	$1\frac{5}{8}$ osc.	N. sciatic. of a Rana esculenta.
2		10	4.2	$2\frac{3}{4}$	
3	$11\frac{1}{4}$		4.5	$2\frac{1}{8}$	
4	9		4.	$2\frac{1}{2}$	
5		9	4.2	$2\frac{1}{2}$	
6	8		3.9	$3\frac{1}{4}$	
7		8	3.9	$3\frac{3}{8}$	
8	7		3.7	$2\frac{1}{2}$	
9		7	4.6	4.	
10	7		4.3	$1\frac{5}{8}$	
11	6		4.	$3\frac{1}{2}$	
12		6	4.6	$2\frac{1}{2}$	
13	5		4.8	$1\frac{7}{8}$	
14		5	4.6	$2\frac{1}{4}$	
15	4		4.	$2\frac{1}{4}$	
16		4	4.8	2.	
17	3		4.2	$1\frac{1}{16}$	
18		3	4.6	2.	
19	o		4.6	$1\frac{1}{2}$	
20		o	5.	$1\frac{1}{2}$	

When the irritation of the muscle is compared with the irritation of the nerve, the same result—less frequently, it is true—is obtained as will be seen in the two following experiments.

Experiment 3.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Muscle.	Nerve.			
1	8 cent.	cent.	5.2 mm.	$1\frac{1}{16}$ os.	N. sciatic. and M. gastrocnemius of a Rana esculenta.
2		8	5.6	$1\frac{2}{16}$	
3	7		5.6	$2\frac{1}{2}$	
4		5	6.6	$1\frac{1}{2}$	
5	5		6.8	2.	
6		4	6.6	$1\frac{1}{2}$	
7	4		6.8	$1\frac{3}{4}$	
8		3	6.8	$1\frac{1}{4}$	
9	3		6.8	$1\frac{1}{2}$	
10		10	6.4	$1\frac{1}{4}$	
11	10		6.4	$1\frac{3}{4}$	
12		13	5.	$1\frac{5}{16}$	
13	12		6.6	2.	
14		12	2.	$2\frac{1}{2}$	

Experiment 4.

Number of the Irritation.	Strength of the Irritation.		Height of the Contraction.	Latent Time.	Remarks.
	Muscle.	Nerve.			
1	7 cent.	cent.	6.6 mm.	$1\frac{7}{16}$ os.	N. sciatic. and M. gastrocnemius of a Rana temporaria.
2		7	6.8	$1\frac{7}{16}$	
3	8		6.7	$1\frac{15}{16}$	
4		8	6.	$1\frac{15}{16}$	
5	9		6.9	$1\frac{3}{4}$	
6		9	6.5	$1\frac{7}{8}$	
7	10		6.	$1\frac{7}{8}$	
8		10	6.	$1\frac{11}{16}$	
9	11		5.9	$1\frac{11}{16}$	
10		11	6.9	2.	
11	13		0.7	$4\frac{1}{2}$	
12		13	o.	o.	
13		5	6.5	$\frac{3}{4}$	
14	5		6.8	$2\frac{5}{8}$	

Conclusions.—The latent time, *i.e.*, the time which expires after the nerve-trunk

or the nerve in the muscle is irritated, up to the time when the muscle begins to contract, includes the time necessary for the effect of the irritation to be conducted to the fibres of the muscle, plus the time which the nerve or muscle occupies in receiving the irritation.

This latent time for the prepared nerve and muscle is usually greater the farther the irritation is applied from the periphery of the nerve.

For the normal nerve, that is, a nerve in which the circulation of blood still occurs, the latent time is usually shorter the nearer the irritation approaches the plexus, owing probably to a greater receiving-power in the normal motor nerves the nearer one approaches the spinal centres.

Physiological Laboratory of Geneva, March, 1877.

TRANSLATIONS.

Treatment of the Gingivitis of Puerperal Women.—Drs. A. and D. Pinard (*Bulletin Général de Thérapeutique*, 1877, p. 157) call attention to this complication of pregnancy, which they assert to be of more frequent occurrence than is generally admitted. The appearences presented in mild cases are as follows. The gums in the neighborhood of the two maxillæ are redder and more congested than in the normal condition; they are tumefied, the interdental free border is exaggerated as to its normal festooned appearance, and covers, in part, each tooth. This condition is more marked about the convex portion of the maxillæ than in the neighborhood of the molars. The least pressure on the tumefied portions provokes hemorrhage. At a stage one degree further advanced, the teeth lose their solidity, can be moved laterally, and sometimes seem to yield to perpendicular pressure; sometimes they are pushed out of their sockets. Mastication under these conditions is, of course, more or less painful, and loss of blood occurs to a greater or less degree. Pain is rarely severe.

The remote cause of this affection is, of course, pregnancy; what the proximate cause may be, however, has not yet been demonstrated with certainty. It usually appears towards the fourth month of pregnancy, sometimes, but rarely, sooner, going away again a month or two subsequent to delivery, especially in women who do not suckle their infants. As to treatment, the authors have used solution of iodine, of glycerole of tannin, and chlorate of potassium, which, though producing good effects, are far from bringing about a rapid cure.

Chromic acid is useful in certain cases, but must be employed with great circumspection.

The following solution of chloral has given good results:

℞ Chloral hydrat.,
Tinct. cochleariæ, āā q. s.—M.

Of course the teeth must be thoroughly cleansed of tartar, etc., before this application is made. x.

Deafness as a Symptom of Bright's Disease.—M. Dieulafoy has noted four cases of Bright's disease where deafness has preceded or accompanied the progress of the affection. He suggests œdema of the auditory nerve as a probable cause, and alludes to the analogous condition observed in the optic nerve.—*La France Méd.*, 1877, No. 16. x.

Treatment of Scrofula.—Dr. Ory (*La France Médicale*, 1877, No. 15) suggests the following mixture in cases where cod-liver oil is not tolerated:

Butter, 10 oz.;
Iodide of potassium, 2 grs.;
Phosphorus, $\frac{1}{16}$ gr.;
Bromide of potassium, 16 grs.;
Chloride of sodium, 45 grs.

To be taken in three days, spread upon bread.

In other cases the following formula containing common salt may be prescribed:

Chloride of sodium,
Tannin, āā 150 grs. (℥iiss);
Confection of roses, 1400 grs. (℥iij).

To be made into 100 pills, one to be taken every two hours for a month. x.

Treatment of Dysentery by Nitrate of Sodium (*La France Médicale*, 1877, p. 91; from *Moniteur Thérapeutique*).—Nitrate of sodium in large doses acts as an ordinary saline purgative. Like the salines, also, it constipates if in part absorbed. It is for this reason that it has frequently proved useful in diarrhœa and dysentery. Caspary (*Deutsche Klinik*) recommends it very highly. The dose differs according to the severity of the case. In true dysentery, twenty-five grammes (about ℥vj) may be administered during the twenty-four hours, in divided doses. Should there be any inflammatory complication on the part of the small intestine, the dose should be less,—fifteen to twenty grammes (℥iv ad v).

The medicine should be administered in a mucilaginous mixture, which should be warmed, cold being injurious in dysentery. When the case is a light one, improvement will be noticed within twenty-four hours. In severe cases several days are required to produce a favorable effect. If within forty-eight hours no improvement is observable, and if the dysentery is rectal, the dose should be increased. If, on the other hand, tenesmus having ceased, there still remain symptoms of inflammation in the small intestine, the dose should be reduced to eight or even five grammes. An increased number of stools indicates too large a dose. x.

ACONITIA IN TRIFACIAL NEURALGIA.—Dr. Gubler (*Bulletin Général de Thérapeutique*, 1877, p. 138) has called attention to the advantage which this remedy offers in severe and stubborn cases of trifacial neuralgia. He goes so far as to assert that he does not remember a single case of neuralgia of the fifth pair which has not yielded to aconitia. A patient who had suffered from extremely violent tic douloureux during many years, who had had portions of all the nerve-filaments exsected, and in whom extirpation of the Casserian ganglion had been thought of, gained perfect relief from five milligrammes ($\frac{1}{12}$ gr.) of Hottot's preparation of aconitia, three milligrammes being insufficient. Dr. Gubler mentions other cases of a similar character, and remarks that it is necessary to continue the remedy for a considerable period in order to hope for any permanent relief. x.

INJECTIONS OF QUININE IN GONORRHŒA.—Dr. Roy (*Le Mouvement Méd.*, 1877, p. 133; from *Ind. Med. Gaz.*) recommends injections of quinine in cases of gonorrhœa.

He gives the following formula:

℞ Quiniæ sulph., gr. ij;
Acid. sulph. dil., ♏viij–x;
Aquæ rosæ, f℥j.—M.

This quantity is for two injections. Copaiba is to be administered at the same time internally. It is said that the effects of the injections are quite remarkable; that they mitigate the burning, and cause a notable diminution in the amount of discharge. The treatment is equally adapted for both acute and chronic gonorrhœa, and is also useful in some cases of cystitis. x.

CYANIDE OF ZINC IN RHEUMATISMAL NEURALGIA.—Dr. Luton, of Rheims (*Bull. Gén. de Thérap.*, 1877, p. 97), again calls attention to the value of the cyanides in the treatment of rheumatism. He gives notes of two cases, one of sciatica followed by trifacial neuralgia and delirium, where the remedy was administered according to the following formula:

℞ Zinci cyanid., gr. iii;
Aq. destillatæ, f℥viss;
Mucilag. acaciæ ad f℥iv.—M.

Sig.—Tablespoonful every hour. *Shake well before using.*

The effect produced was surprising. The patient suffered less the first day after commencing treatment, the accompanying fever abated, the pain became tolerable, sleep and appetite returned. Within three days the disease was cured, and did not return. A second case of trifacial neuralgia, accompanied by acute articular rheumatism, fever, cerebral trouble, was cured rapidly by the same means. Dr. Luton gives notes of both of these cases. In the remarks which follow, he takes occasion to complain of the unmerited neglect with which this remedy has been treated by the profession, and complains almost bitterly of the popularity of propylamine and salicylic acid. Against the latter, indeed, Dr. Luton inveighs as a simple disinfectant elevated all at once by blind empiricism to the dignity of an anti-rheumatic remedy. He also considers the cyanide of zinc to have been employed heretofore in too small doses. If three, four, or four and a half grains are necessary to master the disease, let them be given, but in broken doses, so that elimination may proceed *pari passu* with absorption. The cyanides are transient in their effects: they only pass through the organism, like chloroform, chloral, ether, etc. Hence there is no cumulative effect to be dreaded. Reduced rapidly to the condition of hydrocyanic acid, they are exhaled by the respiratory passages. Dr. Luton does not consider three-quarters of a grain of cyanide of potassium or zinc every hour excessive, and asserts that no risk is run in the administration of this dose. He prescribes it either in pill form or in the mixture above given. x.

CASE OF RUPTURE OF THE SPLEEN TERMINATING IN RECOVERY.—The *Berliner Klinische Wochenschr.*, No. 4, 1877, quotes the following case from a St. Petersburg journal. A physician 33 years of age, who had passed through an attack of *typhus exanthematicus*, after the seventeenth day of convalescence was seized with renewed transitory invasions of fever, in the

course of which the spleen became again enlarged to a marked degree. During a severe attack of vomiting resulting from the ingestion of improper food, signs of rupture of the spleen, with internal hemorrhage, became suddenly evident,—severe paroxysms of pain deep in the epigastric region, enlarged percussion-area of dulness, profound collapse. The physical signs of internal hemorrhage continued to become more evident, the collapse was still more profound, the temperature sank to 35·4° (97·7° F.), cyanosis and anuria were observed. Ice-bladders were kept to the abdomen, one grain of opium was administered every three hours, and later subcutaneous injections of camphor with port-wine enemata. During the following days, contrary to expectation, no symptoms of peritonitis appeared, but gradual absorption of the hemorrhagic effusion took place, with improvement of the patient's general condition. Within a fortnight the effusion was entirely absorbed, the splenic enlargement continuing. Examination of the literature of the subject shows only twenty-two previously recorded cases of rupture of the spleen, all of which proved fatal. x.

Transmission of Syphilis in the Process of Tattooing (*Le Progrès Médical*, March 17, 1877).—The following case is reported as occurring in the service of M. Simonet, at the Hôpital du Midi. A boy, æt. 19 years, entered the hospital with the following history. June 12, 1876, he began to have his right forearm tattooed, the punctures necessary for the operation being made with a needle. The coloring-matter was mixed with the saliva of the operator, who also washed away any excess of the color by a rag moistened with his tongue. He was at the time suffering from some trouble about the mouth, which necessitated frequent cauterization with nitrate of silver. Towards the end of August, *i.e.*, two and a half months after the inoculation, the boy noticed three little swellings on the dorsal aspect of his forearm, two situated just above the radio-carpal articulation, and the third a little higher. They were from the first covered over with scabs, but as he removed these at various times the ulcers underneath would discharge small quantities of pus.

At this time he dressed the chancres with poultices, and under this treatment they rapidly extended. A painless, indurated swelling of one or more axillary glands now took place. The patient was then put on mercurial treatment, and two months after their appearance the chancres had cicatrized.

In January, 1877, he presented himself at the Hôpital du Midi with mucous patches on the side of the tongue, the lips, the pillars of the fauces, the prepuce, and the scrotum. There were some crusts on the scalp, an indurated gland in each groin, and swollen, indolent axillary, cervical, and submaxillary glands. The supratrochlear glands were not involved. He was placed on about the eighth of a grain of corrosive sublimate daily, the mucous patches were touched with nitrate of silver, and he speedily recovered.

This case has seemed worthy of record for several reasons: 1. The peculiarity of the mode of infection, which has not been noted by any author, in spite of the number of people who are tattooed. 2. The transmission of the syphilitic virus through the medium of the saliva,—though it probably proceeded from mucous patches. 3. The long period of inoculation, which resembles that of chancres made intentionally by inoculation. It is suggested that this may be due in extra-genital sores to the fact that the lymphatics are less numerous. 4. The slow cicatrization of the primitive sores, although chancres of the superior extremities usually heal very rapidly. J. W. W.

Syphilis by Conception (*Le Progrès Médical*).—M. Diday, at a recent meeting of the French Society for the Advancement of Science, read a memoir on the transmission of syphilis by conception. He applies the term to those cases of syphilis which, he says, occur in a previously healthy mother through inoculation by a fœtus which has been rendered syphilitic by the father. It has been asserted by some authors that such cases did not occur,—that the woman was always infected directly by the man, and that the initial lesion has escaped notice. From twenty observations made by M. Diday, he concludes that this is not true, that the infection is indirect or occurs through the medium of the fœtus, and that no chancre appears; in other words, a man may infect a woman not only as a husband but as a father. He recognizes, however, that these facts, although indisputable according to him, are rare, and that many women who bear children to syphilitic fathers escape contagion altogether. J. W. W.

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EDITORIAL.

PRESCRIBING BY WEIGHT.

SOLOMON, if he had lived in these latter times and attempted to keep pace with science, would with double emphasis have written, "All is vanity and vexation of spirit." Look at our modern doctor. With a chemical science that he had been taught was definite and fixed, swept into a seeming chaos of univalents, bivalents, monads, triads, pentads, amides, and similar new births; with weights and measures tumbling about his ears; with tubercle and cancer bowed out by catarrhal pneumonia, sarcoma, and other new-fangled terms; with the old therapeutic ways laughed at by the enthusiasts of the physiological method,—no wonder that he is tempted to close his ears, shrug his shoulders, and go on with his work, saying, as did a nanny-goat, we knew of, at the open window during prayer-time, Bah! to the delectation of a parcel of unruly and unwilling boys, who more than half suspected paterfamilias to be more gifted in prayer than in Christian works. But now there is a proposition which comes so close to every-day life and is so gaining favor that it cannot be escaped from, and must arouse the most lethargic routinist. It is that all prescribing shall be by weight, the metric or French system being used.

At some periods propositions like this are not startling; but at the present juncture they gain interest from the fact that a revision of the Pharmacopœia is at hand, so that an attempt to enforce them practically is not only possible, but imminent. In the abstract, the use of weights in preference to measures in all pharmaceutical processes is commendable. Vessels of measurement are of uncertain size and vary with temperature. Weights are accurately determined and do not vary with the heat. The difference in accuracy between the two methods is, however, so slight that in practical life it may usually be disregarded. To the analytical chemist the variance in ordinary measures is appalling; to the dispenser of molasses it is inappreciable. In other words, the accuracy of work required in scientific investigations is of no value in the every-day transactions of life. The question to be determined is, Do the operations of pharmacy require the accuracy of chemical manipulations, or do they belong rather to the category of molasses-measuring?

The subject naturally has two aspects, one the making, and the other the dispensing, of the preparation. It is proper to consider these separately, since it is possible for the use of weights in standard processes to be most convenient, although the employment of measures may be best in dispensing. In regard to preparing drugs, but little inconvenience apparently would result from the substitution of weights, whilst in some instances the increased accuracy might be advantageous. In the great majority of cases, however, such increase would be of no importance. Thus, in the tinctures of the bitters, of what injury would an error of a few drachms in the gallon of menstruum be? Even in the narcotic preparations the effect of a variance of ten per cent. would have no perceptible influence. Can any therapeutist distinguish between the effect of nine and of ten drops of the tincture of belladonna? Now, there is no excuse for a variance of more than the half of ten per cent. in the use of ordinary measures. The gain in accuracy seems to us, therefore, scarcely worth fighting for; and if the weights are to be given in a new system, we protest! In our opinion, any such attempt in the new Pharmacopœia would render it a failure. Another method has been proposed,

namely, that formulæ should be stated by parts in weight, each ingredient so many parts, the pharmaceutist being left to select what weights he pleases. This plan is worthy of the little effort required to introduce it, not only from its intrinsic qualities of simplicity and accuracy, but also from the fact that it is a step towards a most desirable goal, *i.e.*, an International Pharmacopœia. Suppose the change were made in both the English and the American Pharmacopœia, how easy it would be to similate the two standards! The difference in the weights and measures now stands as a barrier of division, like differences of language between two nations. If a common formula in parts were agreed on, the pharmacist would get the standard results whatever system of weights he might employ, or even if he used simple uniform pieces of lead and eschewed legal weights altogether. It is further evident that such a reform would require no increase of knowledge, no forgetting of old and learning of new systems by the gray-haired druggist, whilst it would allow the pharmaceutical fledgling to kick his heels as high as he pleased in the most recent clearing of progressive science. These things being so, we are among those who believe that in the new Pharmacopœia the formulæ should be by parts in weight.

The question of the method to be used in prescribing is, as already stated, essentially distinct and diverse from that just discussed. The only gain to be secured in this case is increased accuracy. It is scarcely necessary to reiterate the arguments already gone through in regard to the value of excessive exactness. What has been said about preparing remedies applies with increased force to the prescribing of them. Not only are there here no secondary good results of moment to be achieved, but the obstacles which lie in the way of introducing the proposed reform seem to be almost insuperable.

Chiefest among these difficulties is the fact that fluid medicines cannot be administered by weight,—that the teaspoon, dessert-spoon, tablespoon, wineglass, or the more exact fluid measures of the modern graduated glass cannot be banished from the sick-room. Now, it is illogical to prescribe by weight and administer by measure. Further, it is practically impossible for any ordinary physician to learn the weights of the innumerable mixtures he makes: having written a formula by weight, he must therefore adjourn to the apothecary-shop to know what the dose is, and then report to the patient.

Mr. Alfred B. Taylor meets this objection by suggesting that the quantities of the active medicine in a magistral recipe be given by weight, and that the prescriber order to be added of the menstruum q. s. to make the desired quantity. It will be noticed that this is not prescribing by weight, but by measure and weight both, which is precisely what is done at present, the difference being that now for his convenience the prescriber uses the measures more freely than he would under the proposed system. We fail entirely to perceive any gain in the change, and we do see an endless amount of unnecessary and useless work for the physician. If the proposed changes were rendered imperative, not only would the veterans of the profession have to learn a new list of doses, but medical students would have to acquire a double set of doses for all the stronger liquid preparations.

It may be that for their sins the doctors are to be set at this herculean task, so that, having endured a purgatory of useless labor here below, they may enjoy a future fruition.

To aid the old doctor, "universally current and cheaply accessible tables" are to be prepared, and it is believed that by proper effort he will soon learn exactly how much in fractions of a gramme corresponds to twenty drops of tincture of nux vomica, a drachm of fluid extract of buchu, a half-

ounce of compound tincture of gentian, and so on from Alpha to Omega. It is plain what a beneficial moral effect this will have upon the physician, rendering him most fit to sympathize with those upon whom presses heavily the burden of life, and exalting him into a heaven of thankfulness when his own task is completed.

It is notorious that the American student has many unoccupied hours in the ten to twenty months he devotes to acquiring his profession, hours which exemplify the old proverb, "Satan finds some mischief still for idle hands to do." For his own good he is to spend these hours in learning double doses, that he may tell Mary to give fifteen drops of that, or a teaspoonful of this, and write to the druggist for so many decigrammes or grammes. Verily, if he flee profanity, the devil will find no idle hours in his life, and personal purity will be a gainer.

As theologians and moral lovers of our kind, we are greatly interested in this project, although we fear that the general profession will side with the nanny-goat and say, Bah! Indeed, if we dared, we would confess to a secret satisfaction that the United States Pharmacopœia does not invade the sacred domain of prescription-writing, and that there is no power having authority to order us to enter this new Canaan to possess it.

We reprint (Notes and Queries) the editorial of the last number of the *New York Medical Record* to show the strength of the best that can be said in reply to the objections urged against the proposition of Dr. Squibb. Either Dr. Shrady or ourselves have misunderstood Dr. H. C. Wood, as we thought he objected, not to Dr. Squibb, but to the power being centred in one man, even though that man were Dr. Squibb.

The charge of duplicity and dishonesty on the part of Drs. George B. Wood, Bache, Carson, etc., we leave to the profession; but we would call attention to the low state into which the practice of pharmacy is alleged to have fallen in Dr. Shrady's field of observation (New York), on account of its bearings upon the selection of the head-quarters of the next committee of revision.

CORRESPONDENCE.

New York, April 14, 1877.

To the Editor of the Phila. Medical Times:

Dear Sir,—For a considerable time past the medical profession of this city has rejoiced in the possession of two societies for the promotion of the study of the nervous system and its diseases, known respectively as the New York Society of Neurology and the New York Neurological Society. These associations, as might be expected, were active rivals, and it has always been the aim of each to try to throw the other in the shade. There was, of course, not the slightest necessity for having two societies of this nature, and now at last the one first mentioned has been obliged to succumb, or at least to suspend its meetings indefinitely.

As a consequence, there is great rejoicing in the "Neurological Society," and its members hope to get many of the best men from the other camp into their own ranks. At the last meeting the annual election of officers was held, and on this occasion Dr. E. C. Seguin, who has long been a prominent member of the Society of Neurology, was chosen President. The other officers elected were as follows: First Vice-President, Dr. Eugene Dupuy; Second Vice-President, Dr. Edw. Spitzka; Treasurer, Dr. —— Harwood; and Secretary, Dr. George W. Wells.

At this meeting, a paper on "*Katatonia*," a new form of insanity, first described by Kaulbaum, was read by Dr. James C. Kiernan, of the New York City Asylum for the Insane, Ward's Island. The disease is mainly characterized by peculiar rhythmic movements, theatrical declamation, and, at times, a cataleptoid condition. Dr. Kiernan has found that it seems to have some peculiar relation to scrofulosis. He has seen thirty cases of it altogether, and regards it as a much less rare affection than its discoverer seems to do.

At the conclusion of this paper, Dr. Montrose A. Pallen, Professor of Gynæcology in the University, read one on *Menstrual Neuroses*. The first case he related was one characterized by convulsions and syncope at the time of the menstrual molimen, which originated suddenly at a time when the patient was completely exhausted from nursing her husband during his last illness, in a hot climate.

Regarding the case as one of cerebral anæmia, and especially of anæmia of the medulla, he administered nitrite of amyl freely by inhalation during the menstrual periods, and with the most happy results. As the heart's action was irregular and the patient debilitated, in the intervals he gave digitalis, manganese, and quinine for a time, and afterwards Routh's chloro-phosphide of arsenic, together with faradization. Free stimulation was also resorted to. With each succeeding return of the catamenia it was necessary to use the nitrite of amyl less and less freely, and after a few months she became entirely well. Since then she has married again, and has never had any return of her trouble. In this case the entire genital apparatus seemed to be perfectly normal in every respect.

The second case was one of paralysis of the right arm, with anæsthesia of the breast on the same side. The paralysis was both of sensation and of motion, though less complete in the latter respect than in the former, and was regarded as reflex by Dr. Pallen, from the antecedents of the case, the lack of constitutional symptoms, and the fact of its coming on during a menstrual period. The uterus and ovaries he found to be intensely congested, much more so than is ordinarily the case at such times. He ordered a brisk purgative, but the congestion still remaining after several days, he had six wet cups applied, by which twelve ounces of blood were withdrawn. In addition, Indian hemp, in full doses, and faradization were employed, and under this treatment motion was soon restored to the arm. The paralysis of sensation, however, persisted until the next menstrual period, when he gave ergot, and it disappeared. Since then the patient has continued well, except that whenever the catamenial flow is at all retarded, some anæsthesia of the breast is apt to return.

The third case was one in which there was temporary suspension of the menses, and pregnancy was suspected. The uterus was hard and retroverted. There seemed to be emphysema at the base of the right lung, and there was also some hemorrhage from the bronchial tubes. After a time, however, there was intense mastodynia, and this was soon followed by a bloody dribbling from the nipple. It then became evident that the case was one of vicarious menstruation, and Dr. Pallen opened one of the engorged veins of the mamma, with the result of giving complete relief to the patient.

The fourth case was one of cerebral hyperæmia, resulting apparently from peripheral pelvic irritation. It was characterized by regularly recurring epistaxis; and, the patient being otherwise in perfect health, Dr. Pallen proposed to withdraw a quantity of blood by leeching the temples. Her friends, however, objecting to this procedure, he bled her pretty freely from the arm, and there was no return of the epistaxis.

The fifth case was one in which there was complete absence of the vagina. When the patient arrived at the age of puberty, there were hemorrhages from the nasal, alveolar, bronchial, and gastric mucous membranes at the time of the menstrual molimen. It was supposed by the gentlemen who saw her previously to Dr. Pallen that there was an imperforate hymen present, and they proposed to make an incision through it. Had such an incision been made it would certainly have entered either the bladder or the rectum. By a careful examination Dr. Pallen was able to ascertain the true nature of the case, and hypogastric palpation showed that the uterus was still undeveloped. After three successive operations and continuous dilatation with glass tubes, he succeeded in forming a very good vagina, in which the menstrual flow always appeared afterwards; but the uterus remained in its undeveloped state.

In conclusion, Dr. Pallen made a few general remarks, in which he stated that he still held to the old view of menstruation, at least so far as to believe that there was always an intimate relation existing between it and ovulation, and said that there was no well-authenticated case on record in which menstruation had occurred with original absence of the ovaries. Where the habit of menstruation had once been thoroughly established, however, it was undoubtedly true that the flow might possibly continue to return regularly even after both ovaries had been removed. He regarded the menstrual function as essentially of neuric origin, and considered the ovaries and uterus as the media through which it manifested itself.

Dr. C. S. Bull has read before the Medical Journal Association a paper on "*The Relation between Chorea and Errors of Refraction of the Eye*," which was written as a reply to that on "Chorea, its Cause and Treatment," read some time ago at the Academy of Medicine by Dr. George T. Stevens, of Albany, and which has evolved so much comment and criticism. In the outset he announced the three following points as essential to the reaching of any definite conclusion as to the relation existing between chorea and errors of refraction.

1. The eyes should be tested both without and with atropia, the latter in order to detect the degree of hypermetropia, when it is present.

2. If the relation is a causal one, the employment of proper glasses alone ought to cure the chorea.

3. The collateral history (as to the existence of a neurotic taint in the family, etc.) ought to be taken into consideration.

He then proceeded to relate, in detail, thirty-one cases of chorea in which he had made careful examinations for errors of refraction. Most of these patients belonged to the poorest class, and some that were ordered glasses were unable to procure them. Of the thirty-

one, fifteen were found to be emmetropic and sixteen hypermetropic, and of the latter, six wore glasses for two and three months, and sometimes longer (all other treatment being in the mean time suspended), but without any appreciable effect on the disease. Nine of the thirty-one patients were of a strumuous diathesis, two were syphilitic, three had Pott's disease, ten had valvular disease of the heart, three were affected with intestinal worms, and all the rest belonged to neurotic families, except one, in whom there seemed to be no apparent cause for the existence of chorea. If error in refraction were considered a cause of chorea, Dr. Bull thought that insufficiency of the recti muscles ought to be regarded even more in this light, as he found it present in every one of the hypermetropic patients and in some of the emmetropic ones. Most of the cases entirely recovered under a course of arsenic usually combined with such tonics as iron and cod-liver oil, but four of them resisted every means of treatment that was employed. The conclusion that Dr. Bull arrived at, then, was that while it is barely possible that errors of refraction may be a predisposing cause of chorea, it is not as yet proved to be anything more than a coincidence in a certain proportion of cases.

Dr. Roosa, on the conclusion of the paper, remarked that he had been struck by two facts during its reading: (1) The curability of the disease (all but four having recovered under treatment), and the special efficacy of arsenic. (2) That, in the condition of life to which Dr. Bull's patients belonged, he was surprised that there should be so small a percentage of hypermetropia. He would have supposed that in about forty out of fifty cases this would have been present. He regarded the paper as very damaging to Dr. Stevens's theory, because it proved conclusively that there was no causal relation between hypermetropia and chorea. He thought from the manner in which the subject had been brought forward by Dr. Stevens that more dignity had been given it than it really deserved, and that it would now be a waste of time to examine any further cases in reference to it. According to Dr. Stevens, hypermetropia must necessarily cause nervous derangement; but he believed that this condition was very much more general than doctors ever imagined.

Dr. Knapp stated that he also had examined a number of cases of chorea with reference to errors of refraction, though not so many as Dr. Bull. He had been unable to discover any causal relation between the two, and had found hypermetropia present in a much smaller proportion of cases than the latter. Some of the German authorities, however, had lately announced that not less than seventy or eighty per cent. of the entire population were hypermetropic during the early part of their lives.

Dr. Noyes remarked that the logic of Dr. Bull's cases was much stronger than that of Dr. Stevens. In the first place, one-half of all those examined had entirely normal refraction, and, again, not a single case in which there was hypermetropia was cured, or even relieved, by the long-continued use of appropriate glasses. This, he thought, settled the case. There might be a coincidence; but there was nothing more. If chorea depended on errors of refraction, it ought to be cured by sulphate of atropia, which causes paralysis of accommodation. Dr. Noyes concluded by relating in detail four cases of his own.

Dr. E. C. Seguin said that in five out of eleven cases of chorea presented at his clinic at the College of Physicians and Surgeons hypermetropia was found by Dr. Bull; these cases not being included in the thirty-one on which the paper of the evening was based. In regard to treatment, he had great faith in arsenic; which, he thought, often cured without the assistance of other tonics. He considered doses of three to six drops of Fowler's solution useless in chorea, and always pushed the drug (in accordance with the practice of Brown-Séquard) until toxical symptoms, such as puffiness about the eyes and derangements of the digestive system, began to manifest themselves. Doses of from twelve to fourteen drops were usually necessary. In his opinion this relation of chorea to errors of refraction was still a matter open for investigation; for it was certainly difficult to get rid of the fact claimed by Dr. Stevens, that his cases recovered by wearing appropriate glasses, without any medication whatever.

Dr. Loring mentioned that he had noticed that in many of Dr. Bull's cases the degree of hypermetropia was very slight, and said that a hypermetropia of one-fiftieth or one-sixtieth was utterly of no value in producing nervous trouble in young children. He was of the opinion that this whole matter would only bring discredit upon the oculists, and that their special department had enough sins to answer for without having chorea also laid to its charge.

Dr. V. P. Gibney, of the Hospital for Ruptured and Crippled, recently read before the County Medical Society a report of nearly one thousand cases of *hip-joint disease*, in which the facts connected with their history showed conclusively that the vast majority of them were of traumatic, and not of strumous, origin.

At the last meeting of the surgical section of the Academy of Medicine, Dr. Sayre made some remarks upon and exhibited his very successful method of treating *rotary-lateral curvature of the spine* by means of suspension by a compound pulley and head-gear, and the application of the plaster-of-Paris jacket. (See current number of *Philadelphia Medical Times*, p. 359.) It seemed to commend itself to all the gentlemen present as decidedly the best plan that has as yet been

devised for the cure or relief of this troublesome deformity; not a word being expressed in opposition to it.

There was a large gathering of the profession at the meeting of the Public Health Association held April 12, when a report favorable to the establishment of provident dispensaries was presented by a committee appointed at the previous meeting, when Mr. Charles Barnard read his paper on the subject. In the discussion which followed there seemed to be but one opinion as to the very great abuses which are now prevalent in our free dispensary system; but the great majority of the medical men present were decidedly opposed to the adoption of the provident plan. The result of the evening's debate was the calling of a general meeting of the managers and medical staffs of the different hospitals and dispensaries of the city, in order to devise some means for the relief of the abuses to which such institutions are now so universally subject. In this connection it may be stated that the recent action of the board of governors of the New York Hospital in exacting monthly payments both from out-door and in-door patients is exciting a great deal of hostile feeling among the profession at large, as it is believed it will have the inevitable tendency to cheapen the rates of medical services, which are already quite sufficiently low in the poorer class of practice.

The new "Baldwin pavilion" of the Women's Hospital has been ready for use for some time now, but has not as yet been occupied (probably for lack of funds to pay for its maintenance). When put into service it will just double the capacity of the institution. The building formerly occupied by the University Medical College has been secured as a permanent home for the Training School for Nurses. The Commissioners of Charity are thinking of converting an "eclectic dispensary" in the neighborhood into a lying-in hospital for street cases of labor; but it would seem to be a much better plan to have this in the same building as the nurses' school.

The affairs of the St. John's Guild are now being investigated,—"after a fashion;" but enough has been developed to show that the treasurer's society and private accounts are hopelessly mixed, and that whatever may be the character of the master of the Guild, its concerns have been managed in a very irregular and reckless manner. It has, of course, accomplished some good, but great harm has also, no doubt, resulted to the community by its indiscriminate charity, which has directly tended to encourage pauperism. If the same vast sums of money, instead of being thus thrown broadcast among the idle and unproductive poor, had been spent in the organization and administration of some regular system of employment, which would have yielded reasonably fair returns, as well as preserved the self-respect of the classes benefited, the results would have been infinitely better than those now shown. It is but just to state, however, that the branch of the Guild devoted to the summer floating hospital for sick children, which is quite distinct from its other work, seems to have been managed with ability and conscientiousness.

It is reported that Mrs. A. T. Stewart is about to present the elegant building erected by her husband as a hotel for working-women to Dr. Hartt for his proposed hospital for chronic diseases. If this is true, it will certainly be a great Godsend to that eminent medical light, in whom, if we are to believe his own statements, all that is noblest and best in the profession is concentrated.

The first quarter of the year 1877 shows a remarkably low death-rate in this city as compared with former years. The whole number of deaths was 6002, which is 1631 less than during the same period in 1876; 1840 less than in 1875; 1550 less than in 1874; 965 less than in 1873; and 1508 less than in 1872. The number of deaths from contagious diseases, as compared with the average for the first quarters of the five years previous, is shown in the following table:

	First quarter of 1877.	Average for first quarters of five years.
Smallpox . .	5	96.
Measles . .	9	92.8
Scarlatina . .	293	262.
Diphtheria . .	226	389.
Whooping-cough	92	140.
Typhus fever .	41	59.

As smallpox has been very prevalent both in Brooklyn and Jersey City, the almost complete immunity from it which New York has enjoyed is no doubt to be attributed, in part at least, to the more efficient vaccination which has been carried on here of late years.

The death of the Rev. Dr. William A. Muhlenberg, the noble founder of St. Luke's Hospital, whose name was associated with the best enterprises of religion and charity, and whose whole long life was full of activity in doing good, has called forth in this community a universal tribute to his beautiful character and a deep feeling of sorrow for his loss.

PERTINAX.

REVIEWS AND BOOK NOTICES.

ESTUDIO SOBRE LA OVARIOTOMIA É HISTERROTOMIA. Relacion de un Caso de Histerotomia operado con buen Exito por el Dr. Wenceslas Hidalgo. Santiago: Jacinto Nuñez, 1877. (A Study of Ovariotomy and Hysterotomy. Account of a Case of Hysterotomy operated on with Good Result by Dr. Wenceslas Hidalgo. Santiago (Chili), 1877.)

This monograph of 108 pages is the offspring of a successful case of hysterotomy, which term

the author uses, not in its most usual signification of Cæsarean section, but as a synonym for excision of the body of the uterus by abdominal section. About half the work is occupied in giving in an elaborate manner the history, statistics, and methods of operating, of the allied operations known as ovariotomy and hysterotomy, which the writer justly says should be considered together, because the surgeon intending to perform the one may unexpectedly find himself confronted with the other.

He seems to be wrong in stating (p. 13) that the first successful extirpation of the uterus was done by Koeberlê, of Strasburg, in 1863, for this is ten years later than the case operated on with success by Burnham of Lowell.

The chief interest of the book, however, centres in the case reported, of which an abstract may be interesting. A woman, aged 32 years, suffered with a uterine cyst (p. 73) involving the body of the uterus and the left ovary. The mass excised, weighing about twenty-six and a half pounds, was found to consist of the left ovary and the body of the uterus, involved in the cystic growth, together with the right ovary. After it was removed the operator saw the cervical canal, and could readily pass a probe from the vagina into the abdominal cavity. The suppuration resulting became so profuse that a drainage-tube was introduced through the posterior cul-de-sac of the vagina; many untoward symptoms occurred, and, worst of all, rupture of the intestine supervened as a complication, and resulted in an artificial anus. Finally, on the 28th of December, 1876, four months after the operation, the patient left the hospital in good health, though the artificial anus remained. An unsuccessful effort had been made to close this opening, but the patient, finding that it gave her very little discomfort, objected to further operation.

In regard to the mortality after extirpation of the uterus, the writer states that statistics show about forty-five per cent. of good results in the operations done between 1863 and 1872. He, himself, has seen in Europe twenty-one cases operated on, of which only three proved unfortunate (p. 17). These statements are certainly much more favorable than the statistics of Storer, which give a mortality of seventy-five per cent.

The first part of the work shows a great deal of research, and a familiar acquaintance with the literature of the subject, which atones for the unnecessarily verbose second part.

J. B. ROBERTS.

TRANSFUSION OF BLOOD, AND ITS PRACTICAL APPLICATION, ETC.

This is a clinical lecture delivered at the Pennsylvania Hospital by Thomas G. Morton, and published in Seguin's "American Clinical Lectures," vol. iii. No. 1.

It is a remarkably concise résumé of the subject of transfusion. First, there is a short history, giving an account of the rise and fall of the operation in professional and public estimation. Its revival in recent times is then spoken of, and the conditions to which it is reasonably applicable are stated in full. Dr. Morton's successful cases have been for losses of blood incident upon or accompanying other diseased conditions: *e.g.*, a case of hemorrhage following the removal of a tumor supposed to be cancerous; two cases of epistaxis occurring in purpura hæmorrhagica; one of bleeding from the mouth and kidneys in typhoid fever, etc.

Post-partum hemorrhages, also, would appear to give most hopeful chances of success.

It will be noticed that, whatever may be the condition, *absolute hemorrhage* appears to be the great fact that precedes the cases of successful transfusion.

Constructive hemorrhages, *i.e.*, anæmic changes arising from disease of whatever kind, appear to offer poor chances for remedy by the transfusion process.

It is curious to know, also, that there is one terrible form of *absolute* hemorrhage, to remedy which it would be theoretically argued that transfusion would be the very thing, but as to which experience seems to establish the contrary. This form is the traumatic, such as that which occurs after severe railroad injuries, gun-shot wounds, amputations, etc. Here it is thought that the element of nervous shock is a large factor against success.

The lecture contains the reports of original experiments upon dogs, both as to the transfusion of blood and as to the effect of the introduction of air into the veins. Dr. Morton characterizes the fear of the latter accident as a bugbear, but at the same time carefully advises and guards against it in his methods of operation.

These methods are detailed in full. Altogether, the lecture is very interesting, and the inducements to try transfusion in certain cases are encouraging. WM. HUNT.

GLEANINGS FROM EXCHANGES.

SPIRITS OF TURPENTINE FOR TAPE-WORM (*The Medical Examiner*, January 25, 1877).—At a recent meeting of the Medical Society of London, Dr. Leared detailed the case of a gentleman to whom he administered, with proper precaution as to previous fasting, kamala ʒii, followed speedily by the same dose of the drug. Although a large mass of tape-worm was expelled, a proglottis was discovered in the fæces after an interval of seven weeks and four days. One drachm of liquid extract of male fern was now given, succeeded by the same dose. As in the case of the kamala, much of the worm was again expelled, and it was hoped that a cure had been effected.

Twelve weeks and two days subsequently the patient nevertheless again observed that he passed portions of worms. A drachm and a half of extract of male fern, together with a drachm of tincture of kamala, was next given, and repeated as before, and with the same result. These doses were succeeded after the interval of a week by two others, each composed as follows:—ext. filicis liq., ℥ii; pulv. kamalæ, ℥i; mucil. acaciæ, ℥ss; infus. koossoo, ℥ii: ft. haust. Seven weeks and three days after the last expulsion, proglottides were again observed. Three drachms of spirits of turpentine were now given after the usual fast. This dose caused the expulsion of the entire worm. Examination of the head proved it to be that of tænia medio-canellata, which is far more difficult of removal than tænia solium.

The Composition of Ewe's Milk (*The British Medical Journal*, February 3, 1877).—At a recent meeting of the North British Branch of the Pharmaceutical Society, Dr. Stevenson Macadam read a paper on "The Composition of Ewe's Milk." Having had occasion to observe the extreme richness of ewe's milk, as compared with that of the cow, or even of the goat, the author had arranged for a series of trials of the composition of ewe's milk yielded by animals fed solely on good natural pasture, and on the same animals after having fed on extra diet, including linseed-cake, cotton-cake, and oats. The results of these experiments showed that ewe's milk was very much richer than cow's or goat's milk. Thus, taking the total percentage of solids by weight in the milk, the average results were as follows: town dairy cow's milk, 12.27; country dairy cow's milk, 12.77; goat's milk, 13 43; ewe's milk on natural pasture, 18.75; and ewe's milk on natural pasture with the addition of feeding stuffs, 20.11. Again, taking the fat in the solids, the town dairy cow's milk gave 2.58; the country dairy cow's milk, 2.88; goat's milk, 4.31; ewe's milk in natural pasture, 6.77; and ewe's milk with extra feeding, 8.27. The general results of these experiments proved, first, that the better feeding of the ewes yielded richer milk, though the gain was not very great, owing, doubtless, to the good natural pasture; and, second, that the ewe's milk, taken under any circumstances of feeding, was of much richer quality than cow's or goat's milk.

The Treatment of Rotary-Lateral Curvature of the Spine (*The Medical Record*, March 31, 1877).—Dr. Lewis A. Sayre, after calling attention to the mechanism of lateral curvature, and the fact that the rotary motion of the vertebræ is confined to their anterior surfaces, recommends very strongly the removal of the superincumbent weight not merely to the posterior part of the bodies of the vertebræ, but to the irregularities of surface upon the entire trunk. He regards this as one of the great essentials for the restoration of the bodies of the vertebræ to their normal position. Unless this is done, all springs and braces are unavailing, so far as radical cure is concerned. Not only that, but they are to be regarded as injurious, even as a temporary treatment: first, because, as a rule, they are not worn with any sort of comfort; and second, they multiply the curves without straightening the column. The instant the spinal column can be made straight, that instant the rotary-lateral curvature is removed. For the milder cases, those in which there is simply a deficiency in muscular tonicity, some light elastic support which will serve as a reminder to the patients that by their own will they are to bring the muscles into action, together with a proper course of gymnastics, might, perhaps, effect a radical cure. But when the osseous structure of the spinal column has become involved, all the braces and other instruments which have been devised for the cure of this deformity are of no practical value whatever.

In such cases Dr. Sayre uses the method of self-suspension originally introduced by Dr. Mitchell, of this city, in conjunction with the application of a plaster-of-Paris jacket. He says, "As a substitute for the usual method of suspension by the arms I employ a compound pulley and head-gear such as I have used for a long time while adjusting the plaster-of-Paris jacket in the treatment of Pott's disease. I believe that the superincumbent weight can be much more effectually removed from the bodies of the vertebræ, hence the spinal column much more completely straightened, by causing the patient to raise himself by lifting from the *occiput* and *chin* than by any other method that has been adopted. I therefore attach the pulley, cross-bar, and head-piece to a hook over the patient's head (a tripod with long legs and a hook above is commonly employed), adjust the head-piece so as to draw equally upon the occiput and chin, and then cause him to raise himself by drawing slowly and steadily upon the cord passing over the pulley above. I believe that no harm will come from this method of suspension, providing the hands of the patient are not permitted to come below a level with the forehead. They should be held high over the head, thus calling into action the muscles of the thorax, and obviating undue traction upon the neck."

After a few weeks' trial of this process, the plaster jacket should be used, but the patient should be required to practise self-suspension the same as before, and as soon as the straightening of the spine becomes sufficient to render the jacket loose, it should be removed and another applied. Dr. Sayre claims the following advantages for this method:

First. It affords a means of treatment which is within the reach of every intelligent practitioner.

Second. It affords the best means for keeping the superincumbent weight from the

bodies of the vertebræ after such weight has been removed by suspending the patient either from the axillæ, occiput, and chin, or from the occiput and chin aided by the thoracic muscles acting through the arms.

Third. It could be worn without discomfort if properly adjusted.

MISCELLANY.

Professor Patruban recently exhibited to the Medical Society of Vienna a case in which he had succeeded in curing a *chorea* of the *sterno-mastoid* muscle.

After having divided the whole muscle, the contractions, which previously took place every half-minute, ceased. In connection with these communications Professor Weinlechner stated that he also considered ligature of the common carotid advisable in cases of neuralgia which resisted other remedies, especially when hyperæmic symptoms are present. Professor Weinlechner also mentioned that he had completely cured a case of chorea of the sterno-cleido-mastoid and trapezius of the same side by resection of the external branch of the recurrent nerve of Willis, 1½ cm. above its entrance into the muscles.

Professor Patruban related six additional cases in which he had performed *ligature of the common carotid*, on account of *facial neuralgia*, and he concluded that this operation, performed by a dexterous surgeon, would never be dangerous; in some cases it would result in permanent relief, in other cases it would produce an improvement for a certain time. The operation, however, should never be performed when atheromatous degeneration of the vessels was present, because there was danger of hemorrhage occurring. Professor Patruban had lost only one patient after this operation.

At Carlisle, England, on the 22d of February, 1877, Mrs. Kirkbride, aged 41, of superior education, the widow for twelve years of a much-respected man, and the only child of well-to-do and respected parents, and the mother of two well-doing young men, who are referred to as not having both been *much* separated from her, was charged before Mr. Justice Manisty with having had concealed for some years the dead bodies of six children.

Mr. Baron Huddleston was supported by Mr. Justice Manisty; both had read the depositions, and both suspected the prisoner to have been guilty of far more than the mere concealment, and, in proof, they pointed to the evidence of strangulation in two cases, and of throat-cutting or decapitation in a third; and Baron Huddleston assured the grand jury that if, *after investigation* of the evidence, they concluded that the case was one "of a more serious character than what the prisoner stood charged with, then any intimation to that effect would be received with respect by those who had the conduct of the prosecution." The medical evidence was, however, inadequate.

The lungs alone are depended on in proof of a newly-born, but now dead, child having ever breathed. The lungs had perished in the "mummification." There are, however, other organs, much less perishable than the lungs, which, *even in a mummy*, may be appealed to for the foundation of a *clearly infallible opinion* (see Carpenter's "Human Physiology," 4th edition, page 1036; Harrison's "Dublin Dissector," 5th edition, vol. ii. page 440; Knox's "Human Anatomy," A. P., 1853, page 319, or any other reliable book); and who can deny that "mummified" bodies *might* not supply "evidence of having breathed"?—*Robert Elliott, M.D.*, in *London Medical Examiner*.

The Managers of the Women's Christian Temperance Union of Philadelphia have established a Home for the reformation of respectable women of the upper and middle classes who are addicted to the habit of drink. It is desirable that those obtaining admission to the Home will remain for not less than three months under the care of the resident physician, Dr. Arminta V. Scott, who makes an especial study of these cases. The managers endeavor to lead the patients to a conviction of the truth that a thorough reform can alone be effected by reliance upon a higher power than their own will. Applications may be made at the Home, No. 220 North Thirteenth Street, Philadelphia. Miss Sarah Cadbury, *President*, 1530 Cherry Street; Mrs. H. M. Troth, *Secretary*, 2018 Race Street.

How Rice is Cooked in Japan.—F. B. Thurber, of New York, writing from Japan to the *American Grocer*, states that the Japanese cook rice as follows: just enough cold water is poured on to prevent the rice from burning at the bottom of the pot, which has a close-fitting cover, and, with a moderate fire, the rice is steamed rather than boiled until it is nearly done; then the cover is taken off, the surplus steam and moisture allowed to escape, and the rice turns out a mass of snow-white kernels, each separate from the other, and as much superior to the soggy mass we usually get in the United States as a fine mealy potato is superior to the water-soaked article.

According to the Mayor's Report, the total number of deaths from *yellow fever* in *Savannah* last summer amounted to 1066. Dr. Duncan, health officer, puts the percentage of mortality—whites, 9.54; colored 1.06: in each case about twice as many males as females dying. The cause of the epidemic is deemed uncertain, but the first case was recognized, and the surrounding locality for several blocks distant disinfected "with lime and carbolic acid." The Chinese would have fought the epidemic with tom-toms, gongs, and fire-crackers in infernal discord; and we are not sure but that they would have had as much chance

of scaring it off as had our countrymen with lime and carbolic acid. It speaks volumes of praise for the police of Savannah that they were unflinching, although 77 per cent. of the force had the fever and 12 per cent. died.

ACCORDING to the London *Lancet*, there is in England a very decided reaction in favor of the rod as a cerebral stimulant to masculine youths. Perhaps, after all, Knickerbocker was a physiologist as well as a philosopher when he called attention to the vital connection between the seat of honor and the seat of learning.

HANDSEL GRIFFITHS has seen violent *post-partum hemorrhages* at once arrested in two cases by spraying the genitals, front and back, with ether.

BY a vote of 14 to 8, the Senate of the University of London has decided to bestow medical degrees on women.

NOTES AND QUERIES.

THE PROSPECTIVE PHARMACOPŒIA.

HAVING in our last stated Dr. Squibb's views, we will today consider Dr. H. C. Wood's objections. Dr. W. thinks if Dr. Squibb's plan is carried out that there is great danger of there being two Pharmacopœias, or if not, that the one of the American Medical Association will probably fail to command respect,—*i.e.*, will not be a good one. It is much better, he thinks, to stick to the old plan, and, in arriving at an opinion concerning the present method, we must judge it in a measure by its fruits. "When we look at American pharmacy, which has grown up under the shadow of this system, we find it peerless among nations," says Dr. Wood. Upon this point we most humbly beg to differ. On the contrary, we believe it to be the most scandalous pharmacy in the civilized world. Not one druggist in ten has accurate weights or suitable balances; not one in ten is capable of determining the quality or purity of the drugs he dispenses; not three in ten will prepare the same prescription exactly alike, unless its ingredients be chemical salts. Some druggists prepare their tincture by Troy weight, others prepare theirs by Avoirdupois. When we turn to fluid extracts we find it much worse. Very few apothecaries prepare them at all. They buy them from the wholesale manufacturers, whose principal aims appear to be to undersell their rivals. Each one employs a different process, which he advocates as superior to those employed by others. What, then, is the inevitable result? Naturally very great lack of uniformity in the products of different houses. In fact, we can hardly find two fluid extracts of the same name that are exactly alike in their physical appearances or therapeutical properties. Take the whole line of pills, and the same criticism will apply. These are but a few of the abuses of American pharmacy, and if Dr. Wood points to them with pride as legitimate offsprings of the present pharmacopœial system—and to a certain extent they are—we can but wonder what the next ten or twenty years will bring forth under a continuance of the same system and the fostering care of such an advocate. The Pharmacopœia "is certainly very good," says Dr. Wood, and yet there is not a line in it that will aid the druggist in distinguishing rhubarb from squills, either as regards the crude drugs, or their various preparations,—not a line that will enable him to judge of the imperfections of an officinal product, in the preparation of which he may have inadvertently committed an error. These, moreover, are not the only defects of our Pharmacopœia. Others even more glaring might be mentioned, but space will not at present permit. We may be told, however, that these various omissions are fully compensated for in the Dispensatory. This we admit in a measure to be true. For years the Pharmacopœia has been kept a skeleton, in order that the flesh, blood, and brains of pharmacy could alone be found in the Dispensatory, that its owners might reap great profit thereby. We cannot wonder, then, that the heir-apparent to the Dispensatory desires that this state of affairs shall continue. Nor are we surprised by the disingenuous and sophistical arguments that he brings forward in support of his position.

Dr. Wood thinks that Dr. Squibb has maligned the last committee, and has intimated that "they betrayed their trust, and used their position to place the book where they knew it would not do the most good for the cause."* In this we think that Dr. Squibb is clearly in error; for the committee certainly did place the book where they knew it would "do the most good for the cause" of the Dispensatory.

Dr. Wood's last objection† to the new plan is the fear that Dr. Squibb may be chosen by the American Medical Association as its representative in the proposed Pharmacopœial Council. Upon the propriety or impropriety of such a choice we do not care to offer any suggestions, believing that the individual members of the profession throughout the whole country are abundantly able to decide the question for themselves.

Dr. Wood concludes with the following quotation from Scripture: "Thou shalt not covet thy neighbor's goods." We fail to see the application of this to the matter in hand, unless it be that the Pharmacopœia as well as the Dispensatory belongs to the Drs. Wood, and that vested interests should be left undisturbed, even if the profession and the people of this country are to suffer in consequence.

We trust, therefore, that when the representatives of the profession are in June next called upon to exercise their judgment in deciding this controversy—for such Dr. Wood has made it—that they will carefully consider not only the main question of measures, but the no less important ones of men and motives, and that before deciding they will carefully peruse the pamphlets of which we have given a brief résumé. Dr. Squibb's will be furnished by him upon application, and Dr. Wood's upon the receipt by him of a "three-cent stamp," the postage thereon being one cent.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM APRIL 8, 1877, *TO APRIL* 21, 1877, *INCLUSIVE.*

MAGRUDER, D. L., SURGEON.—Assigned to duty as Attending Surgeon and examiner of recruits at St. Louis, Mo. S. O. 82, A. G. O., April 18, 1877.

ALEXANDER, C. T., SURGEON.—When relieved by Surgeon Magruder, to report to the Commanding General, Department of the Columbia, for assignment to duty. S. O. 82, c. s., A. G. O.

WOODHULL, A. A., SURGEON.—To report to the Commanding General, Military Division of the Pacific and Department of California, for duty in Department of California. S. O. 83, A. G. O., April 19, 1877.

DE GRAW, C. S., ASSISTANT-SURGEON.—Assigned to duty at Oglethorpe Barracks, Savannah, Georgia. S. O. 76, Department of the South, April 19, 1877.

JESSOP, S. S., ASSISTANT-SURGEON.—Assigned to duty at Charleston, S. C. S. O. 75, Department of the South, April 18, 1877.

DE HANNE, J. V., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Texas, for assignment to duty. S. O. 83, c. s., A. G. O.

GIRARD, A. C., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Dakota, for assignment to duty. S. O. 83, c. s., A. G. O.

WOODRUFF, E., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Texas, for assignment to duty. S. O. 83, c. s., A. G. O.

KING, WM. H., ASSISTANT-SURGEON.—To report to the Commanding General, Department of Dakota, for assignment to duty. S. O. 83, c. s., A. G. O.

HAVARD, V., ASSISTANT-SURGEON.—To report in person to the Commanding officer, Fort A. Lincoln, for field duty. S. O. 42, Department of Dakota, April 4, 1877.

TESSON, L. S., ASSISTANT-SURGEON.—Assigned to duty at the post to be established at the mouth of the Little Big Horn River, Montana. S. O. 47, Department of Dakota, April 14, 1877.

GARDNER, E. F., ASSISTANT-SURGEON.—To proceed to Fort A. Lincoln, D. T., for duty with the column under orders for field service. S. O. 45, Department of Dakota, April 10, 1877.

CORBUSIER, W. H., ASSISTANT-SURGEON.—Assigned to duty at Charleston, S. C. S. O. 76, c. s., Department of the South.

PERLEY, H. O., ASSISTANT-SURGEON.—Assigned to duty at Fort Pembina, D. T. S. O. 42, c. s., Department of Dakota.

* Dr. Wood's pamphlet, page 5. † Op. cit., page 11.

COLLEGE OF SURGEONS OF ENGLAND

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, MAY 12, 1877.

ORIGINAL LECTURES.

CLINICAL LECTURE ON PUERPERAL CONVULSIONS.

BY G. WILDS LINN, M.D.

Delivered at the Philadelphia Hospital.

GENTLEMEN,—The specimens I bring before you this morning were taken from a patient who died of puerperal convulsions, and of whom we have the following history:

M. S., æt. 19, single, domestic, entered the hospital about four weeks since. She was apparently in good health until forty-eight hours ago, when she was suddenly seized by a convulsion. She was found shortly afterwards by my assistant, Dr. Maury, in a semi-comatose condition, but no symptoms of labor were present. A half-hour later she had a second convulsion. Upon catheterization only f℥i of urine could be obtained, a portion of which on the addition of nitric acid completely solidified. A microscopical examination revealed a large number of granular and some hyaline casts.

An enema was given, which brought away a large quantity of fæces, followed by grs. lx of chloral per rectum and that by grs. xx repeated hourly for three hours, when, the convulsions still continuing, at intervals of half an hour chloroform was administered. I was sent for and arrived about five hours after the first convulsion, when I found the patient unconscious, pulse 96, small and compressible, respiration 25, temperature 100° Fahr., legs slightly œdematous, pupils dilated and insensible to the light, no urine in the bladder, fœtal heart-sounds 150 and very distinct, cervix undilated and rigid, with no indications of labor, vertex presenting, position L. O. A. Finding that the chloroform seemed to check the convulsions, I ordered its continuance.

Returning again to the hospital four hours later, I found that although the convulsions were not so frequent, yet they persisted in returning soon after the withdrawal of the anæsthetic. Seeing also that no symptoms of labor had appeared, I concluded to induce it by rupturing the membranes, dilating the cervix so as to allow of the application of the forceps, and deliver the child in the hope of checking the convulsions and possibly saving the mother. I prefer in such cases the rupture of the amniotic sac *before* introducing the dilators, in order by the partial withdrawal of the fluid to bring about contractions of the uterus. Having drawn about f℥xvi of blood from the arm in order to facilitate the dilatation of the cervix, I succeeded in about twenty minutes in dilating it so as to allow the introduction of the extremities of three fingers, when suddenly the patient was seized by a convulsion so violent and protracted that I feared she would die of asphyxia. It had scarcely ceased when another even yet more violent followed, and the pulse became so rapid and feeble that it could not be counted. Recognizing the necessity of immediate delivery, I had recourse at once to bi-polar pelvic version, and delivered the child, which was already deeply asphyxiated, but which was fully restored and is now doing well. With the delivery of the child all tendency to convulsions ceased. The uterus was slow to contract, and it became necessary to use a weak (10 per cent.) solution of Monsel's preparation to keep it contracted. The patient had not been conscious from the time of the second convulsion, twelve hours before. Whisky was given subcutaneously, she not being able to swallow; hypodermic injections of digitalis were also given, and carbonate of ammonium per rectum; heat was applied to the extremities, and a constant oversight of the patient was directed. She rallied sufficiently to swallow, but then gradually sank, and died twenty-two hours after the first convulsion.

Time will not permit a detailed statement of the post-mortem appearances, but the meninges, lungs, liver, spleen, and kidneys were found congested, while the pericardium contained about six ounces of serum. The bladder did not contain a particle of urine. The wall of the left ventricle of the heart was slightly hypertrophied. The pathologist, Dr. Shakespeare, makes the following report:

"*Brain.*—Portions of the cerebrum, optic thalami, cortical and medullary structures of the cerebrum examined appear anæmic, the capillaries being unusually empty; no effusions into the brain-substance discovered.

"*Liver.*—Macroscopic appearance that of the early stage of cirrhosis. Extensive suggillations under the capsule. Substance congested, but no oil-globules present. Decided increase of cells along the radicles of the portal vessels and hepatic artery. Gland-cells normal.

"*Kidneys.*—Capsules of the glomeruli considerably thickened, and the intertubular network of fibrous tissue much increased; epithelial cells of tortuous tubes granular and nuclei indistinct; medullary portion normal; no fat-globules detected."

The facts that the urine drawn after the first convulsion entirely solidified on the addition of nitric acid, so that the test-tube could be reversed without its escape, and that there was no secretion of urine for twenty hours preceding death, were significant of very serious renal trouble. The pathologist's report would lead us to be-

lieve we had a case of chronic contraction of the kidney.

The uterus, as you see, presents no abnormal appearances except slight lacerations of the cervix, an occurrence almost constant when delivery has been rapidly accomplished with an imperfectly dilated cervix.

Two important questions engage our attention here. First. What is the etiology of puerperal convulsions? Second. What should be their treatment?

I.—Their etiology. Three theories have been advanced:

1. The irritative.
2. The toxæmic.
3. The mechanical.

I name the first irritative, because I know of no better term. In some persons there is a neurosis, a morbidly susceptible condition of the nervous system, an exaggeration of reflex excitability, giving rise to various disturbances. I have known a young woman who suffered for years from convulsions which were entirely relieved when a uterine displacement was corrected. On the removal of the pessary six months later the convulsions returned, and were checked upon its readjustment. Hysteria is dependent upon such a neurosis. Convulsions in children are, I believe, entirely analogous to those occurring in pregnancy, being produced in some cases by a foreign body in the stomach, by worms in the intestine, by teeth springing through an inflamed gum, etc. There doubtless exists in such cases a constitutional tendency (it may be inherited or acquired) to eclamptic seizures.

In these days, when pathology is making such rapid strides, it were rash to give unqualified adherence to any medical dogma, but I think this theory will yet be recognized as the *predisposing* cause of puerperal convulsions, the *exciting* cause being found in the condition of the uterus. This view is strengthened by the facts—first, that convulsions often appear *suddenly*, and when previous health was good; second, that they often cease immediately upon the delivery of the child, as in this case; third, that they are often increased by manipulations instituted for the delivery of the child, *e.g.*, by attempts to dilate the cervix.

The toxæmic theory, as its name indicates, would ascribe the convulsions to some poison in the blood. The advocates of this theory contend that they are due to urea which has not been excreted by the kidneys, and hence must term them uræmic convulsions. Frerichs, Braun, and Spiegelberg do not believe they are caused by urea as such, but by carbonate of ammonium arising from its decomposition. Of course it is assumed that some affection of the kidneys is always present, it may be structural or simply a congestion the result of pressure of the pregnant uterus upon the renal veins. Against this theory it may be urged that convulsions occur in some cases when the function of the kidneys is perfectly normal, and often after delivery when no pressure on the renal veins exists. It is true that when a lesion of the kidneys is present and the blood in consequence improperly depurated, the predisposition to convulsions is increased, and also their severity in the same ratio.

The mechanical theory advanced by Rosenstein is, that during pregnancy there is first hypertrophy of the heart, giving rise to increased arterial tension; and secondly, a hydræmic condition of the blood, hence an exudation of serum into the brain-tissues, which in turn compressing the vessels from which it exuded prevents the entrance of blood, and we have an anæmic condition of the brain acting as the direct cause of the convulsions. The same argument would explain and indeed demands the presence of albumen in the urine, also of œdema of the extremities, etc. In answer to this it may be said that it has not yet been satisfactorily proven that the heart is enlarged during pregnancy, and that albumen is not always an accompaniment of the convulsions, as it should be if, as we must suppose, congestion of the kidneys be inseparable from a cerebral congestion, or a serous exudation into the brain-tissues. If, however, there be a hydræmic condition of the blood during pregnancy, as is assumed by so many, it will intensify any predisposition to convulsions already existing.

II.—What should be their treatment?

If you do not follow blindly the dictum of empiricism, you will most likely base your treatment upon one or other of the theories mentioned. Time would not permit me, even were it wise, to dictate any special line of treatment. Each case must be considered by itself. The history of your patient should always be learned if possible, as it may serve as a guide to treatment. This patient had eight sisters, all of whom with herself had convulsions in

infancy, due, the mother thinks, to "teething." She also had convulsions supervening upon an attack of scarlatina subsequently. Her father has had convulsions, but we can find nothing definite as to their cause. I think all cases should be treated by antispasmodics, my opinion being based upon my acceptance of the irritative theory, and chief among these is chloroform. In most cases opium may be well added, and is best given in the form of hypodermic injections of morphia. While in the obstetrical wards at Vienna, I have known cases treated successfully by hypodermic injections of morphia alone. If the intestine be loaded with a fecal accumulation, elaterium or croton oil should be given, for, as already intimated, that alone may give rise to convulsions. When a patient is strong and plethoric, venesection may be resorted to to great advantage, not so much for the purpose of eliminating any blood-poison as to prevent congestion of the kidneys, lungs, spinal cord, and brain leading to secondary apoplexies. When it is found that these means used before labor do not check the convulsions, it should be induced. Prompt delivery *may* save the life of both mother and child, while if there be undue delay both may perish.

ORIGINAL COMMUNICATIONS.

RESEARCHES ON THE ANTAGONISM OF POISONS.

BY FRANCIS L. HAYNES, M.D.,

Assistant Surgeon to the Episcopal Hospital.

I. NICOTIN AND STRYCHNIA.*

THE experiments, one hundred and forty-three in number, were made on rats, cats, rabbits, and dogs. The poisons were invariably injected under the skin. The time given refers to the period of the injection of the poison; or, if more injections than one were made, the time is dated from the first injection.

In all cases in which an animal was killed by strychnia, or nicotin, or by both combined, the heart continued to beat for a variable time after respiration had ceased.

A. *On Rats.*

The ordinary stable rats were used. First, the minimum fatal dose and the physiological action of nicotin were determined, and, next, the action of nicotin and strychnia combined.

1. *Minimum fatal dose of strychnia sulphate on rats.*—This was found by J. Hughes Bennett (*Antagonism of Medicines*, London, 1875, p. 14) to be about $\frac{1}{60}$ of a grain of the pure alkaloid. The rats used by Bennett averaged about one ounce more in weight than those employed by the present writer. Of course the dose of the sulphate is proportionally larger.

2. *Physiological action and minimum fatal dose of nicotin on rats.*—When a small dose of nicotin ($\mathfrak{m}\frac{1}{1000}$ to $\mathfrak{m}\frac{1}{600}$) is injected into a rat, its respiration becomes labored, and, sometimes, noisy; and the animal shows signs of prostration, but is able to make voluntary motions. After larger doses ($\mathfrak{m}\frac{1}{600}$ to $\mathfrak{m}\frac{1}{140}$), convulsions occur, which may be either clonic or tetanic. The convulsions may be preceded, and are always succeeded, by more or less complete paralysis of motion. One convulsion may terminate life, but, generally, the animal survives through several convulsions. The respiration, after each convulsion, ceases for several seconds, and, sometimes, for more than a minute. When death occurs, it is through failure of the respiration. The heart invariably continues to beat for a time after respiration has ceased. Purging and urination are frequent symptoms.

From twenty-one experiments, the minimum fatal dose of nicotin for rats was found to be about $\frac{1}{150}$ of a minim (taking the average weight of the rats to be about ten and one-quarter ounces).

3. *Effects of nicotin and strychnia sulphate when injected simultaneously.*—Twenty-five experiments on rats were made on this subject. The following will serve as examples:

Experiment 28. A rat, weighing 11¼ oz., received strychnia sulphate gr. $\frac{1}{96}$ and nicotin $\mathfrak{m}\frac{1}{230}$. 1 min., panting respiration, semi-paralysis. 1½ min., violent convulsions, after which respiration temporarily ceased, then recommenced with a gasp. Prolonged exhaustion ensued. Several days after, strychnia sulphate gr. $\frac{1}{96}$ was injected alone, but without effect. After a second interval, nicotin $\mathfrak{m}\frac{1}{230}$ was injected alone. It produced difficulty in breathing, and semi-paralysis, but no convulsions.

Exp. 44. A rat, weighing 6 oz., received nicotin $\mathfrak{m}\frac{1}{200}$; it was followed in ½ min. by a tetanic convulsion, lasting two minutes, then by semi-paralysis. 4 min., strychnia sulphate

* Being an abstract of a paper published in the Transactions of the Philosophical Society of Philadelphia, 1877.

gr. $\frac{1}{192}$ was injected. 10 min., the semi-paralyzed condition continued. Reflex excitability increased. 14 min., tetanic, alternating with clonic, convulsions commenced, and lasted for eight minutes, after which there was almost complete paralysis. 33 min., tetanic convulsions, and death.

B. *On Cats.*

1. *The minimum fatal dose of strychnia sulphate in cats* was found to be about $\frac{1}{425}$ of a grain to the pound.

2. *The minimum fatal dose of nicotin in cats* is about $\frac{1}{150}$ of a minim to the pound. The physiological effects do not materially differ from those observed in the rat. An additional symptom is extremely violent vomiting, due to gastro-intestinal spasm (*Nasse*).

3. *The effects of the combined action of nicotin and strychnia sulphate on cats* resembled those observed in rats.

Exp. 79. A cat, weighing 2 lbs. 3 oz., received strychnia sulphate gr. $\frac{1}{288}$. No symptoms resulted.

Exp. 80. The same animal, one week afterwards, received nicotin $\mathfrak{M}\frac{1}{86}$. The symptoms lasted about one hour, and were as follows: violent vomiting, staggering gait, contracted pupils, twitching of the ears, and rapid, noisy respiration.

Exp. 81. The same animal, one week afterwards, received by a single injection strychnia sulphate gr. $\frac{1}{288}$ and nicotin $\mathfrak{M}\frac{1}{86}$. The respiration immediately became rapid and labored. In 30 seconds, clonic convulsions commenced, and lasted till death, which occurred at 2 minutes.

C. *On Rabbits.*

1. *Minimum lethal dose of strychnia sulphate on rabbits.*—This has been determined by Bennett, as regards the pure alkaloid, to be $\frac{1}{288}$ of a grain to the pound. Of course the dose of the sulphate must be proportionally greater.

2. *Minimum lethal dose and physiological effect of nicotin on rabbits.*—The minimum fatal dose was found to be about $\frac{1}{80}$ of a minim to the pound, or $\frac{1}{27}$ of a minim to a rabbit of average size (3 lbs). The essential symptoms caused by nicotin, as in the cases of cats and rats, are paralysis and convulsions, with profound disturbance of respiration. Vomiting does not occur; purging and urination are not as common symptoms as they are in the cat. Rabbits are generally killed by a single convulsion, whether caused by nicotin or strychnia.

3. *Effects of the combined action of nicotin and strychnia sulphate on rabbits.*

Exp. 118. A rabbit, weighing 3 lbs. 11½ oz., received strychnia sulphate gr. $\frac{1}{77}$, with no effect.

Exp. 119. The same animal received nicotin $\mathfrak{M}\frac{1}{30}$. Marked prostration and difficulty in breathing resulted.

Exp. 120. One week after, the above-mentioned doses were given together to the same animal. For 22 min. nothing was noted, except difficult locomotion and prostration. Then two clonic convulsions occurred, in quick succession. 30 min., clonic convulsion. 31 min., tetanic convulsion, and death.

D. *On Dogs.*

1. *Effects of the combined action of nicotin and strychnia sulphate on dogs.*

Exp. 141. A dog, weighing 14 lbs., received strychnia sulphate gr. $\frac{1}{24}$. It was followed by marked increase of reflex excitability, lasting seventy-five minutes. The animal barely escaped a convulsion.

Exp. 142. The same animal, one week after, received nicotin $\mathfrak{M}\frac{1}{20}$. The symptoms were difficult breathing and staggering gait.

Exp. 143. The same animal, one week after, received the two poisons combined, in the doses just detailed. 5 min., difficult respiration, great rigidity, vomiting. 15 min., severe clonic convulsions, lasting two minutes. 23 to 35 min., he had numerous convulsions, but none strong enough to cause him to fall. Then a powerful tetanic convulsion occurred; then the same condition of semi-convulsion was noted; and at 45 min., another tetanic convulsion, and death.

CONCLUSIONS.

1. Strychnia and nicotin are in no degree antagonistic poisons.

2. Strychnia increases the convulsive action and does not diminish the motor paralysis of nicotin.

3. Nicotin (even in paralyzing doses) increases the convulsive action of strychnia.

4. Both poisons cause death by paralyzing the respiratory apparatus. They may affect respiration in different ways, but the result is the same.

5. Animals may be killed by injecting together doses of the two drugs which, singly, are not fatal.

There is no reason to suppose that the above deductions are not applicable to the human animal. The symptoms of poisoning by the two drugs are identical in man and the lower animals. As regards strychnia, this is too well known to need further remark. In regard to nicotin, it is only necessary to refer the reader to the recorded cases of poisoning by that drug.

It may not be out of place to mention the fact that experimentation has proven that nicotin and strychnia show a remarkable

similarity in their intimate action on the nervous system, both being excitants of the spinal cord and paralyzers of the motor or efferent nerves.* For the explanation of these assertions, and for many other deeply interesting facts connected with this subject, the reader is referred to other sources.

CATHETER BROKEN OFF AFTER MAKING A FALSE PASSAGE, EXTRACTED BY PERINEAL SECTION.

BY J. H. POOLEY, M.D.,

Professor of Surgery in Starling Medical College, Columbus, Ohio.

MARCH 15, 1877, I was requested to see A. L., æt. 19, as soon as possible. This young man had been sick nine or ten days with pneumonia. The day before I was summoned he was seized with retention of urine, for which his attending physician introduced a catheter, and in doing so he met with some difficulty and caused a slight hemorrhage. The next day,—that is, the day I saw him,—on attempting again to use the catheter, more difficulty was encountered, and in some part of the manipulation the catheter broke, and six inches of it was left, as the doctor supposed, in the bladder or urethra, or both, and, without making any efforts at extraction, he sent to me for advice and assistance.

I found the patient in a very feeble condition, with pneumonic consolidation of the upper lobe of the left lung, but did not particularly examine into his general condition.

There was some blood oozing from the urethral orifice, and in the perineum, just behind the scrotum, a hard body could be obscurely felt, supposed to be the end of the broken catheter. Examination through the rectum afforded no assistance in the diagnosis.

A pair of slender forceps could be easily passed down to the point where the foreign body was felt in perineo, but did not come in contact with it. It was therefore decided to extract it by external incision.

Owing to his diseased and feeble condition, an anæsthetic was not administered. He was placed on a firm table, in a good light, in the lithotomy position, and I proceeded to cut carefully down upon the foreign body. It was easily reached and extracted through a very small incision in the urethra; no urine followed.

Afterwards I passed a No. 12 catheter with perfect ease, almost without the patient knowing it, and drew off a quart of urine.

The broken catheter extracted was the curved half of a No. 8 silver instrument, six inches in length, showing the mark of a deep indentation at the point where it broke, which the doctor said was there when he used it. It had not passed into the bladder at all, but through a false passage in the urethra, and so between the bladder and rectum.

The patient recovered from this little operation without any trouble. Urine in small quantity passed through the wound for a day or two, after which it ceased, and the wound soon healed.

Remarks.—I have thought this case worth reporting, partly on its own account, but mainly for the lesson it conveys. Medical men who comparatively seldom resort to the use of urethral instruments can scarcely be too often reminded that, simple as it seems, catheterism is an important operation. That it is too often bunglingly done, in such a way as to cause pain and trifling bleeding, both utterly unnecessary in uncomplicated cases, has been proved to me over and over again by the fears of patients when it was proposed, and their pleased surprise when it was accomplished without the least pain. To say nothing of the carelessness of using a bent or half-broken instrument, the present case illustrates two or three points in the use of the catheter to which attention cannot too often be directed.

In the first place, physicians habitually choose too small an instrument, supposing, no doubt, that it is easier of introduction,—an entire mistake.

Less than No. 12 is never needed for a healthy adult urethra, and such an instrument or one still larger will pass with more ease and certainty than a smaller size. In addition, small inflexible instruments are always dangerous, the smaller the more so. Another point, too often neglected, is the proper position of the patient. How often have I seen a physician reaching over, to his own great inconvenience, attempting to catheterize a patient whose hips were sunk deep down into the middle of a soft bed, and who was insufficiently exposed for the purpose, and wondered almost that the thing could be done at all! If the patient had been brought quite to the edge of the bed, his pelvis resting on a firm support or slightly elevated, and his person well uncovered, he would have been saved much pain and his doctor much trouble. And then, in spite of all the anathemas from all the surgical chairs in the country, it seems as though inexperienced manipulators will use force. Nothing can con-

* H. C. Wood's Therapeutics, pp. 284, 340, 341.

vince them that if the instrument does not pass at once they must not make it pass *vi et armis*, and they are constantly exerting an amount of force with urethral instruments at which an expert would tremble.

These remarks will seem to many like bald and tiresome truisms; but the case I have related shows that there are still some by whom they may be read and pondered with profit.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. AGNEW.

Reported by H. R. WHARTON, Resident Physician.

TREPHINING FOR DEPRESSED FRACTURE OF THE SKULL CAUSING EPILEPSY.

JOHN S., æt. 20 years, when nine years of age received a blow on the head from a pickaxe which caused a depressed fracture of the skull on the line of the sagittal suture, about two inches posterior to its junction with the coronal suture. He was stunned by the blow, but soon regained his consciousness. Water-dressings were applied to the wound, and the patient was given bromide of potassium. He recovered rapidly, and showed no bad symptoms until three years after the accident, when he had several convulsions. These attacks at first occurred at intervals of two or three weeks, but gradually increased in frequency up to the time of his admission into the hospital, April 17, 1876, when he had as many as fifteen to twenty convulsions during a day. His friends state that for the last few months there had been some impairment of his mental faculties.

April 19.—Patient etherized, and the skull exposed by a valvular incision. A large trephine was applied, and a disk of bone removed, which included all the depressed fragments; the dura mater was not injured. Water-dressings were applied and kept continuously on the wound until April 27. The patient was given calomel, gr. ¼, every four hours, liquid diet, and kept absolutely quiet. Evening temp. 98.3°; P. 100.

April 20.—Patient rested well; slight discharge from wound. Evening temp. 101.3°; P. 132.

April 23.—Patient suffers no pain; rests well; drainage-tube introduced into wound; small amount of pus discharged.

April 24.—Calomel stopped; patient somewhat nervous towards night, and feared he was about to have a convulsion; given bromide of potassium, gr. xl, and rested well.

May 15.—Patient has presented no bad symptom; drainage-tube still kept in the wound; walking about.

May 20.—Discharged; wound almost healed; only a few drops of pus discharged through the drainage-tube daily. After his return home he was subjected to much excitement, and the drainage-tube was displaced.

May 23.—Had three attacks of convulsions; his physician states that he found the wound distended with pus; a probe was introduced and this was evacuated, and the drainage-tube replaced; after this he had no further trouble.

July 15.—The wound has entirely healed, and the patient has had no more convulsions.*

TRANSLATIONS.

TWO CASES OF ACUTE BULBAR PARALYSIS.—While the symptoms of bulbar paralysis in its chronic form are, since Duchenne's description, familiar to us, cases of the acute form of this affection of the medulla oblongata have only rarely been observed, and have still more rarely been described. And this, although an independent affection of the medulla, or a disease of the spine or brain in which this is involved, gives rise ordinarily to very striking symptoms. To the very meagre symptomatology of the affection which we have heretofore possessed, Leyden (*Arch. f. Psychiatrie*, Bd. vii., Heft 1) adds two recent observations of his own made in Strasburg.

In both cases the symptoms appeared suddenly, and were sufficiently characteristic to enable the affection to be distinguished. In the first case, for instance, paralysis of deglutition, impairment of speech and respiration, occipital headache, great weakness and abnormal sensations in the extremities; in the second case there was only paralysis of deglutition, impairment of speech, together with vomiting, singultus, fits of coughing, the extremities showing decided paresis. As the post-

* May 5, 1877. Patient not heard from; promised to write if he had more convulsions.

mortem examination subsequently showed, these cases belonged anatomically to the rarest form of myelitis medullæ oblongatæ; the centres of infarction were relatively small. In the first case the clot was found in the right half of the medulla oblongata, and probably arose from some heart trouble. In the second case a clot about the same size was found in the medulla oblongata, which apparently was situated exactly in the middle and in its greater circumference involved the entire raphé. The clot was, in all probability, the result of disease of the blood-vessels, and was connected with softening of the medullary structure. x.

Pilocarpin.—Fronmüller (*Centralbl. f. Med.*, 1877, p. 128) found that pure pilocarpin, a reddish-brown extract of weak alkaline reaction, imperfectly soluble in water, easily dissolved in alcohol, in pill form, .06 to 0.9 grm. (.9 to 13.5 grs.), produces the same effect as an infusion of 5 grammes (80 grains) of jaborandi leaves, even in relation to the unpleasant after-effects. The muriate of pilocarpin, a crystalline substance of acid reaction, easily soluble in water, is, according to F., very well adapted to subcutaneous injection. He injected .05 to .09 grm., and observed after a few minutes the well-known effects of jaborandi, profuse perspiration and salivation, lasting for hours, flow of tears, contraction of the pupils, weakness of vision, particularly for near objects, nausea, and even slight vomiting, and finally transitory increase of frequency in pulse and respiration. x.

Some Accidents produced by the Influence of Picric Acid.—A. Delpech (*Annal. d'Hyg. pub.*, Sept. 1876; *Centralbl. f. Med.*, 1877, p. 128) gives the case of two women employed in making artificial flowers, and particularly the green stems. These women, after using the substances employed in this manufacture for some days, experiencing during this period a bitter taste in the mouth, and noticing at the same time that the four fingers of the right hand had become colored yellow, were attacked by severe ulcerating stomatitis, which after a change of employment disappeared. The cause of the affection seemed to be in the circumstance that the green coloring-matter employed was composed of a mixture of picric acid and Berlin blue, and that in twisting the paper into stems, during which the fingers were frequently put into the mouth and moistened with saliva, the picric acid was brought into contact with the mucous membrane of the lips and oral cavity, and thus originated the local affections. x.

Urine in Infantile Atrophy.—Parrot and Robin (*Arch. Gén.*, 1876, pp. 129–292) state that the urine of children in this condition is citron-colored or very dark yellow, its odor strong and characteristic, and it is usually diminished in quantity. Specific gravity 1009–1012.5. It is always cloudy or milky, and is only clear near the conclusion of chronic cases when these are about to terminate in recovery. The sediment, which is almost always present, contains variously-formed cylinders, fatty elements with tinted nuclei, mucus, colored uric acid, urates in a crystallized or amorphous condition, pigment, etc. The reaction is always acid, sometimes strongly so. Proportion of urates decidedly increased. Uric acid is found in notable quantity. The coloring and extractive matters are also increased in amount. Albumen is always present, though in very variable quantity. Sugar may also frequently be detected. x.

Nasal Polypi of Thirty Years' Duration; Section of the Nose; Extirpation; Cure.—Dr. Notta (*L'Ann. Méd.*, 1877, p. 40) reports the case of a man, 67 years of age, who had suffered with nasal polypi, which had grown gradually during thirty years, and had during the previous year or two entirely obliterated the nasal passages. The external orifices of the latter, enormously dilated, were filled with immense tumors, pushing out more than a centimetre (one-third inch) beyond the end of the nose. The tumors were resistant to pressure, giving the sensation of fibrous tumors. The soft palate was pressed forward, and the recurved finger introduced into the back part of the mouth could distinguish a number of mobile tumors filling the nasal fossæ and pressing against one another. For six months the patient had scarcely been able to sleep. The operation consisted in making two vertical incisions, starting from the inner angle of the eye, and following the naso-jugal furrow, terminating in the lower portion of the alæ nasi and extending through the entire thickness of the soft parts. With a pair of Liston's forceps applied in this incision the apophyses of the bones belonging to this portion of the nose, that is, the ascending process of the

superior maxilla on either side, were separated, and then the septum nasi and vomer, the latter reduced to a thin membrane, were cut through with a pair of strong scissors. The nose being then turned up and held out of the way by an assistant, a large cavity was seen, filled with polyps, which were torn away with strong forceps. The larger number were implanted upon the superior wall of the nasal fossæ; although many were adherent to the lateral walls. The turbinated bones seemed almost destroyed, and the nasal fossæ enormously dilated. The polypi which filled the nares were indurated; the others were mucous, but more consistent than common. The volume of those extracted was equal to that of a turkey's egg. After ascertaining that no more polypi remained in the nose, the portions turned aside were replaced and secured by means of twisted metallic sutures. In spite of an attack of erysipelas, the patient made a good recovery. x.

Union by First Intention under Cotton Dressings (*La France Médicale*, March 31, 1877).—At a recent meeting of the Académie de Médecine M. Desormeaux reported the results which he had obtained by dressing with cotton wadding all the wounds which had been under his care, and the sides of which were capable of being approximated. In every such case he claimed to have procured union by first intention, and also to have avoided anything approaching purulent infection, no matter what may have been the sanitary state of the hospital at the time, and in this way to have greatly diminished the mortality after amputation. j. w. w.

Two Cases of Metrorrhagia cured by Injections of Ergotin (*La France Médicale*, March 31, 1877).—Dr. Stefano Tonoli reports the case of a girl, aged 25 years, who menstruated for the first time at the age of fifteen, and who had since then constantly had excessive hemorrhage at each epoch. When she came under the author's care she was suffering from a menorrhagia which had persisted for more than a month. There was profound anæmia. The skin was pale and cold, and the vital forces were greatly depressed. No organic lesion could be discovered. Eighteen to twenty and thirty grains of the perchloride of iron, with cold applications, were administered without producing any effect. Two hypodermic injections into the arm were then given, the solution used containing about fifteen or twenty grains of ergotin to the drachm of a mixture of water, glycerine, and alcohol. The exact quantity employed is not mentioned, but the hypodermic syringe was used full and emptied each time. During the next twenty-four hours four more injections were given, and the following day the hemorrhage was decidedly less, and at the end of five days had ceased entirely. No symptoms of ergotism were observed. The next month there was again abundant menorrhagia, which was controlled by five injections of ergotin. Four months later the patient reported herself as having continued well and menstruated normally.

The second case was that of a woman, aged 32 years, who was similarly affected. Injection of twelve grains of ergotin on the first day, and of eighteen grains on the second day, put a stop to the hemorrhage, which, however, returned after an interval of ten days. A repetition of the injections speedily removed the trouble, which had not reappeared at the end of two months. In this case the points of puncture became painful, and the patient experienced decided malaise, with tremors in the vertebral column and in the articulations of the lower extremities.

j. w. w.

The Biological Position of the Phosphates (*La France Médicale*, March 21, 1877).—At the séance of the Société de Médecine Pratique, held on the 1st of February, 1877, M. Joly read a paper of which the following is a résumé:

1. There are found in the organism five different species of phosphates: the phosphates of iron in the red blood-corpuscle, the phosphate of sodium in the liquor sanguinis, the phosphate of potassium in the nervous system, the phosphate of magnesia in the muscles, and the phosphate of lime in the bones.

2. The presence of the phosphates is intimately connected with all the vital acts: they preside over the nutritive phenomena and muscular activity, and have depending upon them the manifestations of intelligence.

3. Sickness or disease and dephosphatization are inseparable terms.

4. The phosphates have one principal biological function, which is identical with them all, and which consists of a stimulation by means of the phosphoric acid which

they continually set free by their decomposition.

5. They have secondary effects due to the nature of their bases, according to which they act as a mechanical support for living tissue, as agents in the production of physical liquefaction or solidification, and as chemical solvents.

6. The biological importance of the phosphates is proportionate to the quantity which is contained in the red blood-globule. J. W. W.

Anæsthesia of the Skin over the Deltoid Region as a Sign of Subsequent Paralysis in Dislocation of the Humerus (*La France Médicale*, No. 9, p. 69).—M. Anger reports the case of a patient who fell and produced a subscapular luxation of the humerus. The following day there was complete anæsthesia of the skin over the deltoid region, limited above by the acromion, below by the humeral insertion of the deltoid. It came on suddenly, was not accompanied by any pricking sensations, and was believed to be due to some injury of the circumflex nerve. The prognosis of paralysis of the deltoid was made. The dislocation was then reduced, and it was found that the cutaneous anæsthesia continued, and that there was complete loss of power to elevate the arm. Six days later the patient died of pulmonary congestion, and at the autopsy the nerve, lying between the scapula and the head of the humerus, was found to be contused at the point where it divides (lower border of the subscapularis), and a quantity of effused and coagulated blood was found within the sheath. There was also a large subcutaneous ecchymosis seated over the great pectoral muscle, and the capsule of the articulation was torn below and internally. M. Anger concludes from this case that if before or after the reduction of a dislocation of the shoulder there should be anæsthesia of the skin over the deltoid region, a lesion of the circumflex nerve may be asserted to exist. J. W. W.

Vomiting in Phthisis.—Dr. Verda (*Thèse de Paris*, 1876) regards vomiting in phthisis as, in a great majority of cases, a reflex phenomenon. Those attacks of vomiting which we call mechanical—that is, those brought on by fits of coughing—take place by a purely physical mechanism. The symptom of vomiting may occur at any period of the disease, either in the early stages, when it constitutes an initial phenomenon (ganglionic engorgement); sometimes, and most frequently, some time after the invasion of the disease (gastric lesions), or even during the latter stages, and as a sign of approaching death (gastric lesions, tuberculous meningitis). It is less frequent than is generally supposed. Its etiology may be included under four heads, which, in the order of their frequency, are as follows. 1. Lesions of the gastric mucous membrane. 2. Compression or lesion of the pneumogastric nerves as a result of ganglionic engorgements of the mediastinum and neck. 3. Fits of coughing. 4. Neoplastic processes at the base of the brain or of the meninges (rare). Finally, from a prognostic point of view, the appearance of this symptom should always be considered of grave import, and it should be energetically combated, for its persistence aggravates considerably the bad condition of the patient. —*Bull. Méd. de Thérap.*, 1877, p. 142. X.

Peritoneal Exudation above the Liver: Perforation of Right Lung, with Symptoms of Pyopneumothorax of the Right Side (*Berliner Klin. Wochens.*, No. 5, 1877).—A woman was brought into Prof. Leyden's ward, suffering from fever (temperature, 103.5°; pulse, 120; respiration, 32), pain in lower portion of chest on side and posteriorly, also pain in neck, difficulty of deglutition, weakness, loss of appetite, thirst, and diarrhœa; thorax prominent in lower portion of right side; respiration almost purely costal, and was difficult. Percussion showed anteriorly tympanitic resonance on right side down to the level of the intercostal space below this dulness; posteriorly, dulness from angle of scapula down. Auscultation showed diminution of vesicular respiration, with subcrepitant râles above. No respiratory sound heard from fourth rib down. The heart was somewhat displaced towards the left. The abdomen was particularly prominent over the region of the liver. Some days after admission, amphoric respiration, with succussion-splash, could be heard. The diagnosis of *right pneumothorax* was made, and some days later punction was performed. The patient, however, succumbed during the operation. The post-mortem examination showed a large abscess, which had originally formed between the liver and the diaphragm. Very full notes of the case are given, as well as of the post-mortem examination. Y

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAY 12, 1877.

EDITORIAL.

OUR DEAR COUSIN.

THE believers in evolution are receiving much comfort from the behavior of the trophy of the German African Exploration,—the living gorilla now in Berlin. He appears to take to civilization with the avidity of a Japanese Mikado. The Berlin correspondent of the *British Medical Journal* has been received by him as a personal friend, and is enthusiastic over his frolicsome and friendly games, his grave courtesy on occasions, and his child-like good-nature and docility. He is said to spend his time "alternately drinking claret and water out of a glass with excellent grace and propriety; then turning over head and heels, shaking hands at frequent intervals; then drumming on his breast and on the floor; chasing a little boy and a dog (his two favorite companions) round the room; handing wine to his cousin; and swinging on a trapeze, seated by the side of his boy-friend."

The correspondent describes the anthropomorph—"as like a little negro boy in the face as a being not absolutely human can be; his hands are most startlingly human; and in many of his childish ways and solemn courtesies he is almost more than 'anthropomorphic.'" Herr Gorilla is most affectionately disposed to his cousin the chimpanzee, sharing spontaneously with him his favorite tipple, "most gravely and politely," we are told, tilting over his glass half full of wine and water to "Tschego," and gravely watching his enjoyment of it. It is rumored that the London Zoological Society have offered $10,000 for him, but that the Anti-Vivisection Society have applied for an injunction, under the law forbidding buying and selling of human beings. Fortunately for the Zoological Society, Dr. H. Bolau, of the Hamburg Zoological Gardens, has recently had the opportunity of dissecting three gorillas, who arrived at the city well preserved and in good spirits. He triumphantly proved that the liver does differ, as previously affirmed by Huxley and Flower, from that of man,—having the lateral fissure scorned by the hepatic viscus alike of the man, the chimpanzee, and the gibbon, but adopted by that of all the lower monkeys. The lawyers have, therefore, a fair opportunity for a case; and it seems hardly probable that the injunction will be granted.

EUROPE, and, consequently, America to some extent, is threatened with a great danger, magnified by the Turco-Russian war, whose development may decide the fate of the Turkish Empire. The plague has appeared at Bagdad, and it is feared with reason that this is but the prelude to a general breaking forth of the disorder in the great centres of Persian population, and its passage along the lines of travel through the Red Sea and the Suez Canal. The prospect for cholera is said to be even more gloomy. The epidemic which started in India in 1875 and extended northward through the British possessions, in 1876 spread throughout Afghanistan, and at the close of the year (the latest accounts) was at the Persian frontier. The natural course of this death-wave seems to be onward through Persia to the Russian territories of the Caspian; and with the gathering and transporting of troops its pace may be quickened until it sweeps into the seat of war like an earthquake tidal wave.

DEATH FROM NITROUS OXIDE.—A death has occurred in Manchester, England, from nitrous oxide. The only important particulars reported are that it happened in a man after the extraction of some teeth, and that the verdict of the coroner's jury was,

Died from syncope during the administration of nitrous gas for the extraction of teeth whilst laboring under fatty degeneration of the heart.

PROFESSOR JOHN WOOD has accepted the chair of Clinical Surgery in King's College, made vacant by the death of Sir William Fergusson.

CORRESPONDENCE.

LONDON LETTER.

THERE is comparative quiescence in the medical world, as this is the interval betwixt the winter and summer sessions. The chief matter of medical interest recently has been the renewed discussion betwixt George Johnson, of King's College, on the one part, and Sir William Gull and Dr. Patton, of the London Hospital, on the other, as to the changes which go on in the blood-vessels in chronic Bright's disease. In May, 1872, the two latter gentlemen recorded a series of observations on the cases commonly called chronic Bright's disease with contracted kidney. They then affirmed that there were not only the well-recognized cases with contracted kidneys and hypertrophied heart and diseased vessels, but that there were also others in which the changes in the heart and blood-vessels were found, with the kidneys only slightly affected, and that there even were cases where these changes were found without the kidneys being affected at all. They contended that the condition was not essentially a renal one, but that the change was a more general one, in which the kidneys were more or less involved. On the other hand, Professor George Johnson maintained that the change commenced in the kidneys, which became diseased in the first place, then the blood became imperfectly depurated. This impure blood excited arteriole spasms, which in time led to thickening of the muscular wall of the arterioles, and obstructed blood-flow, which in its turn induced hypertrophy of the left ventricle to drive forward the blood in the face of the obstruction offered.

Sir William Gull and Dr. Sutton reopened the contest by an elaborate series of observations on the blood-vessels of the spinal cord, and exhibited a large array of microscopic sections. They showed that the surface of the cord was bounded by connective tissue, part of its pia mater, and that processes proceeded therefrom, penetrating into the white matter of the cord. These unite to form a connective-tissue plexus in which the nerve-tubules lie.

There is thus a normal basis for disease to commence upon. In disease these normal meshes become thickened with fibroid material, while homogeneous masses grow up among them. The vessels become thickened too, especially the part exterior to the muscular layer, which becomes covered with coarse and dense-looking fibres, among which are to be seen numerous spindle-shaped nuclei. The muscular layer of the vessels may become thickened, or it may become atrophied. These fibroid changes in the cord are closely allied to the changes in the kidneys. In each it is found in largest quantity where the normal connective tissue is most abundant. In each it progresses from without inwards, and in each it extends from the arterioles and capillaries into the surrounding connective tissue. The growth of this fibrous material in each organ contracts and compresses the surrounding tubules, atrophying or destroying many of them, but at the same time leaving others comparatively normal. In consequence of this last, both cord and kidney possess considerable functional activity in the midst of advanced disease. Very frequently acute disease is set up in these chronically altered parts, and the end soon supervenes.

The difficult part of the subject is that these changes in both organs were not always found together, sometimes one organ being distinctly affected while the other remained quite normal. Their conclusion was as follows. Fibrosis of the cord may occur coincidently with fibrosis of the kidney; or it may be in advance of fibroid change in the kidney; or it may occur as part of a general fibrosis, altogether independent of kidney disease.

Professor George Johnson criticised several points, to which no reference can be made here, and then proceeded to expound his views. He thought the primary change consisted of destruction of the epithelial lining of the renal tubules, which was thrown off as casts, atrophy and contraction of the tubules following. Some tubules got plugged up, and then, becoming distended by fluid, cysts were formed in the kidney. These changes were set up by the irritation caused by imperfectly assimilated products of food, or by alcohol or other causes. He thought the changes seen in the cords described might be accounted for by the local irritation caused by imperfectly depurated blood, when the kidneys had become incompetent to perform their functions properly.

Dr. Dickenson, of St. George's Hospital, gave it as his opinion that besides this wasting in the kidney there was also a growth of connective tissue. This was evidenced by the fact that numerous nuclei were to be found, showing that the growth was but of recent origin. He thought that in this case each saw different sides of real truth. That the muscular wall was always thickened in kidney disease was clearly not an accident. Arterio-

capillary fibrosis was equally well proved, and there was a thickening of the walls with it. The arterioles were thickened in all cases where the function of the kidney was impaired, whatever the form of disease. Dr. Mahomed, of St. Mary's Hospital, said that high arterial tension was found in the arteries of gouty persons and high livers. Prolonged high tension must lead to thickening of the coats of the blood-vessels. Dr. Gowers, of University College Hospital, showed a living case (a female) where the retinal arterioles were contracted, with an hypertrophied heart, she being the subject of chronic Bright's disease. The general opinion formed from this discussion seemed to be in the direction that there was much to be said for both sides of the question. Dr. Johnson has succeeded in showing that arteriole hypertrophy is a consequence of renal disease; while the other side have demonstrated that there are general changes in the blood-vessels often accompanied by distinct renal disease (but not invariably so), which are allied to senile changes, and which point to a wider implication than Dr. Johnson seems inclined to admit. The progress of this discussion shows that the opposed views are approaching and not getting further away from each other. Certainly the general knowledge of the subject is much advanced thereby. The late Prof. Laycock, of Edinburgh, used to teach that general diseases, as gout, found their seat in the tissues developed from the different layers of the embryo,—a view which will be found fruitful when followed out systematically.

We seem to be far from having reached the end of the therapeutic art; indeed, it would appear that we are but on the threshold of a new line of inquiry of a startling character. A telegram in the *Daily News* in Easter week briefly stated that a number of medical gentlemen had waited upon a M. Burg, in Paris, to witness the effects of the application of metals to the external surface of the body. M. Charcot, with a number of eminent confrères, and Prof. Ferrier and Mr. Ernest Hart, witnessed M. Burg's novel measures. These consist of the application of a band of disks of metal to the skin of certain patients. These patients were affected with semi-anæsthesia, and there was not only loss of sensation upon one side, but there was also a fall of temperature. M. Charcot passed long needles right through the thigh, the cheek, and down the web of the fingers of the affected side, and twisted the needle about most effectually without the slightest evidence of sensation being produced. In addition to this, there was no bleeding from the orifices. The test was very thorough, and was applied to some new patients as well as those who had been some time under care. After this belts of disks of various metals were applied to the patients for a quarter of an hour, when a total change was found to have been induced. The slightest prick of the needle not only elicited evidences of acute sensation, but the pricks bled readily, and the temperature rose. The results were only brought about when the proper metal for each patient had been applied. Thus, in one iron disks would induce the change; in another, copper disks; while in others silver, platinum, or gold disks were required; one metal alone having this curious power over each patient. The possibility of the whole thing being merely an hysterical affair was negatived by the nature of the experiments made. If the metal disks were covered on the side applied to the skin with a thin covering of wax, out of the patient's sight, so that there could be no collusion, no effects were produced; demonstrating that the effects are not the mere result of imagination. The most curious and inexplicable part of the whole affair has yet to come. After these metal belts had been wound round the limbs of the affected side, and that side had been restored to its normal condition, the anæsthesia passed over to what had been before the sound side. Needles could be passed into the tissues without eliciting pain or drawing blood, just as was the case before with the affected side. The whole thing appears incredible if it were not supported by the testimony of persons of unimpeachable veracity, who themselves admit that they are not provided with any hypothesis to explain these extraordinary phenomena. A commission has been appointed in Paris to thoroughly investigate the whole subject, and to subject the patients to every possible test, in order to establish or explode the matter. For many years M. Burg has been regarded as an object of suspicion as to the reality of his experiments and the bona fides of his operations, but at last the matter is to be cleared up. The practical value of thus finding out the metal to which a patient is susceptible is that it furnishes a clue to the internal administration of remedies. For instance, M. Burg had a patient suffering from persistent aneurism where the administration of iron was of no avail. By means of the application of these belts of disks it was ascertained that gold was the metal for which this patient had an elective affinity, as it were, and the administration of gold internally soon led to a perfect cure. If these observations be corroborated and confirmed, even the most recent treatises on therapeutics will have to be rewritten, and our therapeutic measures in many respects simply revolutionized. The progress of the inquiry instituted by this commission will be watched with the keenest attention by the whole of the profession.

The plan of investigating phenomena thoroughly seems to be spreading throughout all classes. Recently I gave an account of some guardians in Yorkshire who preferred a constrained residence in York Castle to putting the Vaccination Act in force in their union.

After a brief stay they compromised the matter and were released. The guardians of an adjoining union were also much perturbed by the statements of resident anti-vaccinators, and so determined to investigate a few of the strongest cases of disease alleged to have been produced by vaccination. The moment these cases were subjected to careful handling they crumbled down in the most remarkable manner, and the anti-vaccination people were "hoist with their own petard." The perverse opposition to this act by a large section of the population in the crowded manufacturing districts of Lancashire and Yorkshire is curious, as the agitation is much less pronounced elsewhere. Even severe attacks of smallpox, in which the unvaccinated invariably suffer most severely out of all proportion to their vaccinated neighbors, are ineffectual in producing any change of opinion in these blinded and ignorant proletaires, animated by a truly British antipathy to all coercive laws, and lashed forward by printed statements of unparalleled mendacity.

In the Croonian Lectures delivered before the Royal College of Physicians by Dr. Braxton Hicks, that authority maintained that in the female infant from the earliest period could be noted a tendency towards that sexual development usually attained at puberty. He puts it, "The organs of generation in their healthful state, from the earliest intra-uterine life till the full period of puberty, are in a state of progressive development." Ovulation and menstruation are too commonly supposed to begin together, whereas in reality ovules are discharged at a period long anterior to the appearance of menstruation,—in fact, in early childhood. He holds that the difference of sex in a child is manifest from its first appearance; these differences are but intensified at puberty. Even sexual feelings exist from early infancy, and only become highly manifested at puberty. He differs from Professor Virchow as to womanliness being essentially dependent on the presence of ovaries,—Virchow says, "Take away these, and one has a man-woman,"—and states that he agrees with Puech, that in reality woman possesses her peculiar attributes with but slight modifications in the absence of her ovaries.

It is, he says, a well-ascertained fact that women who have no ovaries possess the sexual desire like other women, and altogether behave as women in their sexual relations. The instinct is not dependent either upon the ovaries or on the change of puberty, although doubtless intensified by it. The full development of women may be attained without menstruation, and even without uterus or ovaries. He seems inclined to think that some at least of the hemorrhages which occur in girls are due to the general excitement which it is now known marks the time of menstruation, and which is general and not merely local, and which apparently is formed before puberty; and it is seen to linger after the change of life has been completed. He thinks that the supposition is not too wild to be entertained that we may find traces of periodical hemorrhage in certain adult males, which are allied to the rhythmic flow of woman. In women the menstrual fluxes seem to furnish a sort of safeguard against certain ailments: thus, gout rarely shows itself very actively in woman until after the menopause; and in advanced life women are nearly as subject to gout as men of the same age.

In an interesting communication to the *Journal of Anatomy and Physiology*, Professor Sidney Ringer furnishes reasons for holding that tetanus is not due to increased excitability of the spinal cord, but rather to a diminished resistance offered to the spread of reflex action. He was led to this conclusion by a series of experiments made with calabar bean, the common box (buxus), and gelseminum. The two last-named drugs paralyze the cord and yet produce tetanus: while if strychnine is administered to an animal in whom one leg is made artificially weaker than the other, tetanus is more readily and sooner produced in the weaker limb. Thus he holds a view the opposite of that taught in our ordinary handbooks, and if the facts he adduces are beyond disproof we seem compelled to accept his conclusions. Not only is this view maintained by experimentation, but it is supported by clinical evidence. He says, "A similar fact is often witnessed in disease, when paralyzed limbs sooner become tetanized by strychnia than other parts of the body, as is the case of hemiplegia from brain-disease. Here half the cord is not exercised at all, or but slightly, and consequently its nutrition becomes defective, and it wastes. Strychnia will induce tetanus more readily in this depressed half of the cord than in the opposite healthy half." In tetanus, then, "the resistance to radiation is diminished," in the words of Ferrier. Bernstein says, "Physiological facts point to the conclusion that there is a connection of the sensory centres with each other, for a phenomenon which forcibly points to such a connection is that of irradiation. It is known that if a sensation is increased so as to become pain, it will not confine itself to the spot which has been irritated; the whole hand, nay, the whole arm, may ache if the cause of pain is only in the finger. It even happens that in such a case we feel the same sensation of pain in the corresponding finger of the other hand, though in a less degree. But, it will be asked, why do only strong impressions cause irradiation, and why not also weak ones? And then why does not irradiation extend over the whole sensory centre, whereas it occupies only part of it? We are hereby led to the assumption that the excitation has to overcome resistance in the ganglionic cells, and on account thereof undergoes a loss in its intensity." Speaking of strychnia-teta-

nus he says, "It is simply due to a depression of the resistance in the nervous centres."

In my last letter I finished with some remarks about treating the individual as well as the disease. A most forcible instance of this occurred to a friend lately, one of the longest-headed of the many long-headed Aberdeenians in London. He was called in to see a boy who was suffering from double tubercular pleurisy and worn to a skeleton. The diagnosis had already been made by several of the most eminent men in London, who had given the youth hypophosphites and other remedies for the tubercular condition of the lungs. The patient got steadily worse, and appeared to be at death's door. When my friend saw him he was in bed, laden with bedclothes, and with a temperature above 103° Fahr. His tongue was red, raw, and irritable. Two things were evident: 1st, that the organism was rapidly burning itself up, and, 2d, that the condition of the stomach called for immediate treatment. The first thing done was to throw off the bulk of the bedclothes, so as to admit of more perfect heat-loss. Without any antipyretic, the temperature soon fell considerably, and in a little time became nearly normal. Then bismuth in tragacanth mixture was given to allay the gastric irritability, and a milk diet was prescribed. The stomach soon became soothed, the milk was retained, nutrition improved, the boy gathered flesh, and the whole general condition was changed. The lungs and pleura were for the time put in abeyance, and all that was done for them was to keep up counter-irritation by the application of iodine liniment to one side. The improvement in the general nutrition was felt in the diseased parts, though the pleuritic rub still remained distinct; and so the patient has progressed steadily to convalescence by treating the individual rather than the disease.

Another contribution to our knowledge of the length of time human beings can survive without food has been furnished by an accident in a Welsh coal-mine. An influx of water from an old working caught nine men and imprisoned them in one of the higher levels of the pit. Believing that some of the men were alive, large pumps were fitted to the pit, but were found to be ineffectual. It was then determined to cut through forty yards of solid coal lying betwixt the imprisoned men and an accessible point. This undertaking took several days, but they had not gone far before they heard the knocking of the imprisoned men. At last the men were reached and all recovered alive. For ten days they had been immured, absolutely without food, except some grease which they licked off their candle-box. They had some muddy water, which at first they could not taste, but in time they were glad to drink occasionally. When recovered, they were in a much less exhausted condition than was anticipated, and some even were able to walk away themselves into the new cutting made for their escape. Four men were lost somewhere else, but the five who were found were all of them comparatively strong. They were just coming out when the water caught them: so it may be inferred they were all with empty stomachs to commence with.

The circumstances which have kept them so vigorous after this long fast are probably these. The men, as a rule, made almost no exertion, which would have tended to produce earlier exhaustion. They were in a pit which is, as is well known, of a high temperature: so that their body-heat was easily maintained. They were up to the last few hours dry, and not in water, which would rapidly have drained away their body-heat. Coal is a very bad conductor of heat: so they were not unfavorably surrounded. They were in total darkness most of the time after their candles went out, and that might reduce their chemical combustion somewhat. The compressed air in which they were might have been supposed to have increased their chemical interchanges, but probably that air was soon re-breathed, so that its oxidizing power was diminished. Probably if the air had not been highly compressed they might have perished of cold from imperfect oxidation. So far as is yet known, this long immersion in compressed air has had no injurious effects upon the lungs.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, FEBRUARY 8, 1877.

The PRESIDENT, DR. H. LENOX HODGE, in the chair.

Case of mitral, tricuspid, and aortic disease, with pulsation of the liver, and pericardial adhesions. By Dr. JOHN GUITÉRAS.

W. McG., æt. 27, intemperate and a sailor; mother died of consumption, the rest of the family very healthy.

He had always been in good health, with the exception of an attack of acute articular rheumatism at the age of 22. It was followed by no apparent cardiac disease. Shortly after he contracted syphilis; and its secondary manifestations brought him twice to the hospital.

Three years ago he began to suffer with dizziness, dyspnœa, and palpitations. During the present year he has been twice under treatment for œdema and other cardiac symptoms. Diagnosis, mitral regurgitation. He came under my care three weeks ago, when the nurse called my attention to the abdominal pulsation, a symptom that had escaped the patient's observation.

Present condition.—There is emaciation and

slight jaundice. The skin is marked by scars of rupia. The face and extremities are congested, the veins of the neck swollen and the seat of pulsation. The ophthalmoscope reveals pulsation of the retinal veins. The whole trunk is rhythmically shaken and the abdomen distended with each impulse. There are two areas of circumscribed pulsation: one is at the præcordia from the third to the sixth rib, the apex of the heart being opposite the fifth interspace just within the line of the nipple; the other area of pulsation is at the epigastrium. The impulses are not synchronous. The respiration is interrupted by the jerking movement transmitted to the diaphragm.

The epigastric impulse is as marked as I ever saw it in any case of aneurism. The whole abdomen pulsates; but the circumscribed area at the epigastrium feels like an expansile tumor extending from under the ribs down to two finger-breadths from the umbilicus. It seems to spring from the right hypochondrium, though the tympanitic distention of the abdomen prevents the distinct definition of a border towards the left hypochondrium. The results of percussion are also interfered with by the same cause. There is pulsation of the lower right half of the thorax, and by pressing the hand under the ribs the edge of the liver can be felt pulsating even to the lumbar region. The pulsation is somewhat increased by the erect posture, and not diminished by the prone. There is no pulsation along the lumbar vertebræ, and no thrill anywhere.

Auscultation of the heart reveals a loud blowing murmur, replacing the first sound, and transmitted towards the apex and the right of lower segment of the sternum. It is also heard towards the axillary line and at the angle of the scapula. No murmur is heard over the tumor, or along the lumbar vertebræ. There is reduplication of the second sound of the heart. The asynchronous pulsations are found to correspond—that at the præcordia with the presystolic time, and the epigastric with the murmurs or systole of the ventricle as indicated by the carotid pulse; at this time an *active* retraction about the region of the apex is to be noted. I could detect no sound of the jugular valves.

The patient complains of weakness in the loins, a painful sensation of weight about the epigastrium, and marked dyspeptic symptoms.

The diagnosis of mitral and tricuspid regurgitation, with adherent pericardium and pulsation of the liver, is confirmed by the specimens described in the following notes of the post-mortem examination.

There is decided jaundice.

Lungs œdematous; no adhesions; considerable passive effusion on the right side.

Heart: the pericardium is closely adherent to the entire surface of the heart, but not abnormally so to the chest-walls and pleura. The left ventricle is somewhat dilated, and its walls of normal thickness. There is some thickening of the auricular walls. The cusps of the mitral valve are thickened, rigid, adherent, so as to form a typical button-hole mitral orifice, with rigid, unyielding edges. The walls of the right ventricle are slightly hypertrophied. The right auricle is dilated, and its walls thin. The cusps of the tricuspid valve are thickened and shortened. There is thickening of the aortic valves, evidently sufficient to produce obstruction. The muscle is flabby and fatty. Weight, seventeen ounces.

The *liver* is indurated, engorged, and fatty, and the veins resemble sinuses. The capsule is thickened, rough, and opaque. The capsule of the spleen is in the same condition, the organ weighing thirteen and a half ounces; the liver, three pounds twelve ounces.

The *gall-bladder* is remarkably thickened.

Kidneys indurated, somewhat enlarged, and such as are characteristic of cardiac disease. They are somewhat fatty, and probably the seat of interstitial proliferation.

Remarks.—When under my care at the Philadelphia Hospital, the patient had been very much relieved by the use of sulphate of iron, digitalis, and ergotin. The pulsation diminished, but was persistent to the time of his death, which was the result of progressive failure of the heart's action.

The case very much resembled one of aneurism. The persistency of the pulsation for nearly three months very decidedly pointed in this direction, as well as the vigor of the impulse, and the absence of any evidence from percussion that there was enlargement of the right lobe of the liver. Yet the general venous pulse, the pulsation along the margin of the right thorax, the jaundice, the tendency of the simulating tumor to start from the right of the median line, and the absence of other signs of aneurism and of atheroma, pointed to a pulsating liver. I have seen cases where the venous pulse was more marked than in this case, but none where the hepatic pulsation was so great. This finds an explanation in the pericardial adhesions.

The diagnosis of the latter was rendered probable by the reduplication of the second sound. A better support for the theory to explain this phenomenon in such cases could not be found. The reduplication could be heard only towards the lower segment of the heart, and to my ear it seemed clearly produced by the recoil of the chest-walls after their depression in unison with the contracting ventricle.

The systolic pitting of the region of the apex-beat also proved the existence of pericardial adhesion. The presence of this symptom in the present case proves, contrary to Skoda's opinion, that the existence of adhesions between the pericardium and the chest-walls is not necessary for its production.

The jerking movements that this adherent heart must have transmitted to the diaphragm

must have had much to do with the production of the interrupted respiration. I also believe that they contributed to increase the abdominal pulsation.

It is worthy of note, first, that this condition alone, without the tricuspid regurgitation, could have been sufficient to cause the general venous pulse, inasmuch as the inspiratory force, an important aid to the venous circulation, was rhythmically interrupted by the heart's action; second, that an abdominal aneurism beating against the diaphragm could give rise to the same symptoms.

The absence of a presystolic and aortic obstructive murmur, notwithstanding the lesions, may be explained in the usual manner.

Dr. LONGSTRETH asked Dr. Guitéras whether the liver extended below the ribs.

Dr. GUITÉRAS said it did not in the mammary line, but that in the median line it extended to within an inch of the umbilicus.

Dr. LONGSTRETH asked the condition of the right side of the heart as to the presence of blood.

Dr. GUITÉRAS did not know.

Dr. LONGSTRETH thought it peculiar that the liver should extend so far forward and downward as to produce so remarkable a pulsation. The pulsation is generally downward, but the organ is always extended beyond the edge of the ribs, and not to the left in this instance.

Dr. GUITÉRAS said the indurative changes referred to, which were so marked in the kidney and spleen, had also commenced in the liver; that it was a little hardened, which might account for the absence of enlargement. He thought the left lobe pulsated more because it was not so much covered in by resisting chest-walls and diaphragm; and he also called attention again to the transmitted cardiac impulse through the diaphragm and adherent pericardium, which would especially influence the left lobe of the liver.

Dr. C. B. NANCREDE asked whether it was customary to find pulsation of the retinal veins in heart cases.

Dr. GUITÉRAS said he had only looked for it in one other heart case besides this, and this was in a case of simple tricuspid regurgitation, and he could see no way in which other than tricuspid lesions could give rise to such a symptom.

Dr. NANCREDE said he asked because he thought he had observed pulsation of the retinal veins where there was no heart trouble. He wanted to know whether the pulsation involved the whole organ (the liver).

Dr. GUITÉRAS said that there were other causes, not connected with the heart, giving rise to pulsation of the vessels of the fundus. In regard to the liver, the notes stated that the pulse was more marked in the left lobe, but that it could be felt by pressing the fingers under the right margin of the thorax.

Dr. NANCREDE thought that these cases of venous pulsation in the eye were explainable by the withdrawal of the inhibitory influence of the sympathetic nervous system, as all the cases he had seen were unaccompanied by any heart trouble. With regard to this present case, he thought it conceivable that as in the cerebro-spinal system we have an inhibitory reflex influence set up by irritation of the afferent nerves, he did not see why the same thing could not obtain in the sympathetic system. In the present specimen the two cardiac nerves must have been compressed by the plastic lymph which bound down the pericardium to the heart.

Might this not have set up an inhibitory influence which, removing the nervous influence of the sympathetic from the vessels of the liver, would cause a pulsation and the *pseudo-cavernous* condition of that organ? We have this passage of arterial blood into the veins actually demonstrated for us by observed cases where it has issued from a vein after prolonged bleeding. As is well known, the sympathetic nervous system gives out before the cerebro-spinal: consequently the capillaries dilate and pass the blood too rapidly to allow of its becoming venous. In further illustration of this point Dr. Nancrede mentioned a case which he had presented to the Society some years ago, where profuse diuresis was caused by the pressure of an aneurism upon the cœliac sympathetic plexus of nerves, which was clearly due to the dilated condition of the capillaries of the kidney rendered possible by removal of the inhibitory influence of the sympathetic.

Dr. F. P. HENRY said the principal nerve concerned in such a reflex action was that of Cyon, a sensitive cardiac nerve, irritation of which, produced artificially by experiment or through labored action of the heart, is reflected to the abdominal blood-vessels, which it paralyzes and so relieves the overstrained organ. We can therefore attribute a certain amount of congestion, and possibly pulsation, to nervous influence. Dr. H. had often seen retinal pulsation where there was no heart disease, although he thought that in this case it was produced by heart disease. It is, however, of no great diagnostic value, as it is a frequent accompaniment of trifacial neuralgia and hyperæsthesia of the retina due to overstrain of the eye, especially in connection with some anomaly of refraction.

Dr. GUITÉRAS said that there was no necessity for bringing up this nervous theory. The mechanism of the general venous pulse was a well-known and very simple one: each contraction of the right ventricle sends a wave back over the insufficient tricuspid valve into the venous system. This may even give rise to a sound in the jugular valves, but as soon as their resistance is overcome the general venous pulse becomes apparent. As there are no valves in the hepatic veins, the liver is the first to suffer. In regard to nervous disturb-

ance I may say that there was a peculiar absence in this case. The pulse was regular, and there was no cardiac pain. I am aware that some nervous symptoms have been explained in cases of pericarditis by irritation of the phrenic nerves, such as hiccough, angina, palpitations; but they were all absent in this case.

Dr. HENRY said the nerve he referred to was a branch of the pneumogastric, and he thought it no stretch of theory to call in its action to explain pulsation of an abdominal organ: indeed, if such pulsation were merely mechanical we should expect to find it constantly.

Dr. LONGSTRETH asked whether the second sound at the aortic orifice could not be caused by a condition of the aortic valves. He thought Dr. Guitéras seemed to indicate that the reduplication of the second sound was pericardial as to its origin. Was not the condition of the aortic valve such as to allow regurgitations? He thought the aortic valves seemed shortened.

Dr. GUITÉRAS said it was not a murmur, but a reduplicated second sound, and it is a result of a recoil of the chest-walls returning to their place after being dragged down by the contracting ventricle, which they follow on account of the adherent pericardium. The aortic valves seemed to close very well, but there was an aortic *obstructive* thickening which did not give rise to any murmur.

Epithelioma of cervix uteri and vagina. By Dr. J. EWING MEARS.

The patient from whom the specimen was removed was seen by Dr. Mears in consultation with her family physician, Dr. Alfred Jones, of this city, January 30, 1876. The following history was obtained at that time. Mrs. O., widow, aged 36, states that her mother died at fifty-two years of age, of inanition, the result of a disease of the tongue which was pronounced by an eminent surgeon of this city to be malignant in character. Her father died of dropsy at the same age, the condition being caused, as stated, by structural disease of the liver. One member of the family, a sister, died of phthisis. Previous to her marriage, fifteen years ago, her own health was fairly good; since then it has not been good. Her first labor was premature, and gave rise to prolapse of the womb, for the relief of which she wore a pessary. Four years since, she had frequent attacks of pulmonary hemorrhage, and was informed by the physician attending her at that time that she had phthisis, one lung being, as he stated, "all gone." Under the treatment of another physician, whom she consulted, the hæmoptysis ceased, and did not return until last year, when it was again relieved by her attending physician.

In the month of June, 1876, two weeks after the disappearance of her menses, she had a copious uterine hemorrhage, which continued for a number of days. Believing it to be the beginning of the menopausis, she did not seek medical advice. During this time the death of her husband occurred, and she was subjected to great care and anxiety. In the next month, after a shorter interval following the usual menstrual flow, the hemorrhage recurred, and continued for a longer period. She now consulted her physician, who prescribed an astringent wash and placed her upon strong tonic treatment. A vaginal examination was not made. Each succeeding month the hemorrhage occurred, increasing in quantity and following quite closely upon the cessation of the menstrual flux. She has observed that the attacks were preceded and followed by a copious serous discharge; sometimes this was mixed with blood. She states that at no time has the discharge been offensive. She has suffered from severe pains in the lumbar and inguinal regions, which have interfered seriously with her work and rest.

By the advice of her physician, she submitted to a vaginal examination, when the morbid condition implicating the uterus was detected. On making digital examination, the growth was found to involve the entire external surface of the cervix uteri and to extend a short distance into the canal. On the left a distinct neck could be felt between the diseased tissue and the utero-vaginal fold, while on the right the disease had involved the vaginal wall, thus obliterating all traces of the cervix. Manipulation provoked slight hemorrhage and pain.

Four days later the growth was removed, the galvano-cautery wire being employed for this purpose. This was only partially successful, owing to the melting of the platinum wire. The operation was completed with the scissors, and the hemorrhage controlled by the galvano-cautery, which acted admirably. The surfaces were freely touched by the cautery, thus removing all of the morbid tissue. The patient is doing well, no examination having thus far been made to determine the condition of the parts. No bleeding has occurred, and but slight suppuration is present.

The specimen was referred to the Committee on Morbid Growths.

Report of the Committee on Morbid Growths.

"The specimen presented by Dr. Mears, removed from the vagina and os uteri, shows by microscopic examination the characteristic structure of an epithelioma, having long prolongations of epithelial pegs into the submucous tissue, in which were seen a few epithelial pearls. The papillæ of the mucous membrane were exceedingly large, measuring in length from $\frac{1}{80}$ to $\frac{1}{60}$ of an inch, and from $\frac{1}{500}$ to $\frac{1}{300}$ of an inch in width.

"March 8, 1877."

Dr. MEARS also presented the bladder taken from the subject used for class demonstration at the Dental College, showing a fasciculated condition due to obstruction by enlarged prostate.

Freezing microtome. By Dr. Morris Longstreth.

The freezing microtome exhibited is that described on p. 164 of Prof. Wm. Rutherford's second edition of his "Outlines of Practical Histology."

Dr. James Tyson asked Dr. Longstreth whether he had found sections made from tissues hardened by freezing exhibit appearances more satisfactory, particularly as regards the relations of adjacent structures to each other, than those made from sections hardened by alcohol and chromic acid and its compounds.

Dr. Longstreth said he favored the results obtained from frozen tissues, all parts of the section showing well. He said that it had been formerly offered as an objection to the freezing-process for cutting microscopic sections, that the cells were ruptured by the change of density and damaged in appearances. This effect he had found not to be the case. It is claimed by Prof. Rutherford that the proper relations of the component parts of a section of tissue are better preserved than by the other methods of preparing tissues for section-cutting. If one calls to mind the long and delicate process usually employed in the treatment of sections after hardening in chromic acid or Müller's fluid,—the many transfers from one reagent to another, with the successive washings,—it is easy to comprehend that this freezing-method is almost free from the danger of disturbing the relations of the parts of the section. The application of reagents, etc., can be performed on the glass slide on which the section has been placed whilst yet frozen.

The embedding mixture in which the specimen is frozen, recommended by Prof. Rutherford, has been found entirely suitable and serves completely the purpose. It is composed of 5 oz. gum acacia, 120 m. spts. camphor, and 10 oz. water. (Br. Ph.)

Dr. Jos. G. Richardson preferred the results from cutting of frozen tissues not only as regards cellular elements, but also of denser structures. He thought the granular and brittle conditions which result from hardening in chromic acid often objectionable. He had employed the method recommended by Klein several years ago, in which the specimen was pinned to a cork enclosed in a tin box and the latter immersed in a freezing-mixture, and was much impressed with the superiority of the sections thus obtained, especially as respects the cellular structures.

The method certainly facilitates the making of thin sections in cases where an immediate examination is necessary, as is sometimes the case.

Dr. Longstreth further remarked that, in addition to the advantages derived from the use of the freezing-microtome already mentioned, in studying sections as a whole and discovering the relations of stroma, cells, etc., the instrument allowed of a rapid method of examining the fibrous portions alone. Other methods of hardening do not act on the different constituents of a tissue alike: one hardening solution, whilst applicable to the preservation of cells and their subsequent study, is not favorable for the fibres; again, with other hardening methods it is oftentimes difficult to remove the cell-elements by pencilling without working damage to the fibrous portions, the hardening process causing the cells to adhere with great firmness. The freezing-method obviates such difficulties. A difficulty might arise, however, in the treatment of a frozen section, from the great delicacy of the stroma of a tissue when submitted to the pencilling process. This difficulty he had overcome by immersing the section in alcohol for a short time, until sufficiently hardened to bear the pencilling without damage. Other appropriate fluids could be substituted for alcohol if desirable.

REVIEWS AND BOOK NOTICES.

Electro-Thermal Bath. By Justin Hayes, M.D. Chicago, Jansen, McClurg & Co., 1877.

This little book is mostly occupied with the details of cases cured or benefited by the electric bath. It is altogether devoid of any scientific study of this method of treatment, but is certainly much more worthy of praise than the work of Schweig recently noticed, in that fewer apparent impossibilities have been seen by its author, and an intelligible statement of the method of giving the bath is given. Any one desiring to know what is claimed for the bath, and how to give the bath, may buy this book with a reasonable hope of at least a modicum of satisfaction. As a specimen of style, we extract the subjoined sentence. We have not seen its equal since the days of Macaulay, and hope that our readers will enjoy it as much and study it as profoundly as we have done. It occurs at the end of a long report of the case of Miss ——, a female physician, in whom male physicians mistook an ascites from chronic peritonitis for ovarian tumor, and performed ovariotomy in spite of the remonstrances of certain other male doctors:

"A few hours before her death the enormity of the mistake came to her mind with a wonderful force, and the whole arena of the pros and cons of lucidity and morbidity of mind, that had yielded their various impress on her conduct during this fearful sickness, flashed upon her as she was at the zenith of her comprehension of the whole situation."

Atlas of Skin Diseases. By Louis A. Duhring, M.D. Philadelphia, J. B. Lippincott & Co.

The second fasciculus of this work has ap-

peared, and more than fulfils the promise of the first. The profession can well forgive the delay, as it was caused by the author's pre-occupation on his text-book, and will not occur again. The plates represent Acne rosacea, Ichthyosis, Tinea versicolor, Sycosis non-parasitica, and are extremely fine.

Ziemssen's Cyclopædia of the Practice of Medicine.—Vol. XII. Diseases of the Brain and its Membranes.

This volume of the Cyclopædia fully comes up to the standard of preceding volumes. We have been especially pleased by the articles by Professor Nothnagel, whilst those by Huguenin seem, although very full, discursive and lacking in system. Whether Dr. Buck is getting tired of his editorial labors or not we have no information; he would, however, be something more than human were he not doing so, and we do not feel like blaming him for the vexation we have suffered from consultation of his index. Some three hundred pages—it would be more satisfactory if they were fewer—are occupied with a discussion of meningitis in its various forms and parts, and yet meningitis does not appear in the index, and we can find there no reference to any variety of it except the tuberculous,—which, when a man is getting up a clinical lecture in ten minutes, is calculated to lead to low views as to the blessedness of life, and to a rash acceptance of the Calvinistic belief in the total depravity of the human race.

GLEANINGS FROM EXCHANGES.

Peculiar Wound by a Knife (*The British Medical Journal*, March 17, 1877).—Mr. Charles E. Hoar reports a case in which a wound of the left side of the neck was inflicted by a double-edged knife thrown with homicidal intent. Death occurred in thirty minutes. Twenty-one hours after death an autopsy was made, with the following results. There was slight rigor mortis. The body was well nourished and of healthy appearance. There was a punctured oblique wound, three-quarters of an inch in length, in the skin on the left side of the front of the neck, anterior to the sterno-mastoid muscle, three inches (in an extended position) above the sternal end of the clavicle. On removing the skin, the left anterior jugular vein was found to be perforated vertically, and empty of blood; the left sterno-hyoid muscle was cut through diagonally. There was extravasation of blood in and around this muscle. The left sterno-thyroid muscle was cut through; the first and second cartilages of the trachea on the left side of the front were obliquely cut through, and the lower part of the second cartilage was also perforated towards the back on the right side. Some small deep veins at the base of the neck on the right side were wounded; and there was considerable extravasation of blood directly connected with the posterior aperture in the trachea. The wound penetrated between the bodies of the vertebræ and the inner side of the anterior part of the first rib (nearly wounding the right pleura) to a distance of five inches (in an extended position) from the skin. The thyroid gland was large, but uninjured. The carotid artery and internal jugular vein of each side were also uninjured. The bronchi were full of dark blood. On opening the chest, the lungs did not collapse: they were pale in front, but distended with frothy blood and air. The large veins of the chest and right cavities of the heart were full of dark fluid blood. The left cavities of the heart were empty, and ventricle firmly contracted. The stomach contained dark matter.

The case is interesting in many points. The cause of death was undoubtedly suffocation, in consequence of the blood flowing into the trachea, principally through the posterior aperture, and filling the bronchial tubes. Whether syncope from loss of blood accelerated the decease or not, it is hardly necessary to inquire, as the suffocation must have soon occurred. It is said that he spoke a few words after he went up-stairs. The very small external wound, the depth which the knife penetrated, the transfixion of the trachea, and the immunity from injury of the carotid arteries and internal jugular veins, were peculiar features of this case.

Tuberculosis of the Vagina (*The Clinic*, March 31, 1877).—Tuberculosis of the vagina is one of the rarest diseases, but Weigert reports the case of a woman, aged 27, in whom he found small tubercular deposits in the lungs and intestines, together with a general tubercular peritonitis. A number of small spots with dark-red bases and thickly studded with miliary granules were discovered in the mucous membrane of the upper portion of the vagina. Portions of these spots of altered mucous membrane had undergone caseous degeneration. The uterine mucous membrane was intact. The microscope clearly determined the tuberculous nature of these spots, which in some of the larger infiltrated portions had blended together, while in other spots remaining separate. He did not consider it probable that any connection existed between the peritoneal and the vaginal tuberculosis.

Ergot in Atony of the Bladder (*The Clinic*, March 31, 1877).—Prof. von Langenbeck, at a meeting of the Berlin Medical Society, stated that in atony of the bladder, associated with enlarged prostate, in elderly men, in which the organ is never completely emptied of urine, he has lately tried the hypodermic injection of ergotin with most surprising results. In three cases the contractile power of the bladder was at once

increased so as to enable the patient to discharge additional urine, and in a few days it had so augmented that very little urine was left behind. After one or two injections the improvement was considerable, and even a diminution in the size of the prostate seemed to have ensued. Dr. Israel said that he had derived the same benefit from the employment of the ergotin, and referred to the case of a patient who was thus enabled to hold his water for three hours, whereas before he voided it every ten minutes.

Rarefied Air in the Treatment of Pulmonary Disease (*The Clinic*, March 31, 1877).—Dr. Frentler claims rather remarkable results from the treatment of various forms of pulmonary diseases by the inhalation of rarefied air. About thirty cases (of hæmoptysis, various pneumonic infiltrations, chronic and general catarrhs, tuberculosis, and phthisis) were treated by these inhalations, and the following results observed: Within a week the patients rested better at night, regained appetite, showed a marked increase of strength, and a diminution of night-sweats and diarrhœa. Later (except in the few not at all benefited), the temperature came down, and the rate of pulse and respiration was diminished; cough and expectoration varied, and seemed dependent upon the state of the atmosphere. In slight cases, the local improvement was very soon quite manifest. Cures occurred earliest in cases of hæmoptysis, then in general chronic catarrh, then in general tuberculosis (?), the time being respectively about three, four, and five weeks! Disease at the apices, and pneumonic infiltrations of the lower lobes, required six to eight weeks. In cases of large cavities, the results seemed to be only temporary.

Cerebro-Spinal Meningitis the Result of an Abscess opening into the Spinal Canal (*The New York Medical Journal*, February, 1877).—An excessively rare and interesting case of cerebro-spinal meningitis occurred recently in the Presbyterian Hospital, and resulted from the penetration of the spinal canal by an abscess situate in the lumbar region. The history of the case was as follows. A man entered the hospital, suffering from an abscess situated near the right sacro-iliac synchondrosis. There were no special symptoms complained of, other than lassitude and weariness. The abscess had been noticed for about two years, and had been opened at different times. A few days after being admitted to the wards, the abscess was laid open, and shortly afterwards symptoms of spinal and cerebral meningitis developed themselves. The cerebral meningitis followed so closely on the spinal that it might be said to be nearly coincident. Death took place forty-eight hours after the seizure. At the autopsy a deposit of lymph and pus was found over the convexity of the anterior lobes of the brain. The anterior and posterior surfaces of the spinal cord were found deeply congested, and covered also with the same products of inflammation.

On examining the abscess it was found to be situated in the vicinity of the third and fourth sacral vertebræ. On each side of the sacral vertebræ was found a large cancerous mass, which evidently had been the cause of the abscess. The most interesting element of the autopsy was found to exist in the last lumbar vertebra. In the middle of the body of that vertebra there was found an opening which communicated between the abscess and the spinal canal. This opening was sufficiently large to admit a No. 10 catheter, and allowed of the free passage of the contents of the abscess into the spinal canal. A point of interest was that the accident took place after the abscess had been freely opened.

Local Treatment in Diphtheria (*The Chicago Medical Journal and Examiner*, March, 1877).—Dr. A. W. Hagenbuch, in reporting the features of an epidemic of diphtheria which occurred in a pauper institution under his charge, ascribes the very low rate of mortality (one in thirty-three) to the early and thorough local treatment employed. Twenty cases in which a vigorous local treatment was employed made a more rapid and perfect recovery than cases in which the local treatment consisted only of weak astringent gargles too early discontinued. In several cases it was necessary to return to the local applications to relieve suffering and imminent danger to life from accumulated secretions and extensive false membranes obstructing the pharyngeal space. The local applications mostly employed consisted of equal parts of tincture of the chloride of iron and dilute nitric acid. First rinsing the mouth, and carefully removing the secretions and detached membranes with a dry swab, this preparation was applied with a soft brush. The parts, upon inspection, now presented a dryer and more healthy appearance, the astringent application causing the contraction of the tissues and giving to the enlarged tonsils a corrugated appearance. In three cases only was a stronger preparation than the above employed, including one case, in which the nitric acid C. P. was carefully applied to the false membrane with an ivory probe; and although the membrane reappeared in other locations, a single slight application would completely remove the newly-formed membrane, leaving in its place a healthy-appearing granulated surface, which healed kindly without any further trouble.

Absence of Uterus and Vagina (*Medical Examiner*, January 4, 1877).—Dr. Puntores describes the case of a single woman, æt. 34, who, wishing to be married, consulted him with the object of undergoing an operation for the manufacture of a vagina. She said she had sexual desire and experienced an orgasm on vulvar copulation.

There were a well-developed clitoris, labia majora and minora. On examination with sound in the bladder and finger in the rectum he became aware of the absence of the uterus, and consequently declined to operate. The mammæ were well developed.

Exhalation of Carbonic Anhydride by the Skin in Man (*The Lancet*, March 24, 1877).—Dr. Fubini, in the number just issued of the *Archives of Medical Science* of Turin, gives the results of a series of investigations he has made in conjunction with Dr. Ronchi, in the physiological laboratory of Turin. These observers have applied an apparatus which is fitted with means of determining the temperature and the amount of watery vapor and of carbonic acid gas eliminated by the skin. They find that the elimination of the gas is closely connected with the circulation of the blood, and all causes that are capable of acting on this influence the elimination of carbonic anhydride. Their experiments do not enable them to draw any conclusions in regard to the influence of barometric pressure on the elimination of this gas, perhaps because the limits between which the pressure varied were too small. They ascertained the important fact that the quantity of the carbonic anhydride exhaled by the forearm and hand in the dark is to that exhaled under the excitation of bright light as 100 to 113. They found also that temperature exerts a certain influence on the amount eliminated from the surface of the skin generally, the quantity being increased proportionately to the rise of temperature; that the amount eliminated during fasting, as compared with that during digestion, was as 100 to 112; and, lastly, that during the consumption of animal diet the surface of the body exhales a less amount of carbonic anhydride, as compared with purely vegetable diet, in the proportion of 100 to 116. All the experiments were made on Dr. Ronchi, who was twenty-seven years of age and weighed 105 pounds. The surface of the forearm and hand in him was to the surface of the whole body as 1 to 16.

Effusions of the Pleura, and Thoracentesis (*The Medical Record*, February 3, 1877).—Dr. Beverly Robinson, in an admirable and exhaustive paper on the conditions existing in effusions of the pleura, comes to the following conclusions:

Inasmuch as it is proved that puncture of the chest-walls, with a capillary needle attached to the improved aspirator, whenever performed with due precautions against the entrance of air into the pleura, is a perfectly simple and harmless operation, and, further, that any appreciable amount of liquid, irrespective of its nature, is by its presence pernicious, and may become dangerous; therefore I hold that, *in all cases of pleuritis in which fluid is present, we should without hesitation make use of the aspirator to withdraw the morbid effusion.*

To this law I shall only affix *one* limitation and *one* exception.

The limitation is, Whenever very large or excessive quantities of fluid are present, it is wiser to puncture the chest on two successive occasions, so that all risk of acute œdema of the lung on the affected side shall be avoided.

The exception is, If the patient be very much enfeebled and the effusion be small or moderate, we may with advantage delay the operation, during a brief period, until his forces have been somewhat re-established.

By proceeding after this manner, all danger of *fatal syncope* will be obviated. Meanwhile, of course, if the effusion from small, or moderate, rapidly becomes large or excessive, the formal and imperative indication is to operate so soon as possible. In syncopal states there is anæmia of the brain, which is often successfully treated by placing the patient flat on his back. In view of this fact, Marrotte has recommended to operate while the patient is in a half-reclining or completely recumbent posture, so that there may be less predisposition to this condition. This practice seems to me judicious.

Dialysed Iron (*The Medical Press and Circular*, March 21, 1877).—A preparation of iron has been recently introduced. It consists of the peroxide of iron in the colloid form held in solution in a small body of water: it is, in fact, a *soluble hydrate of iron*. It contains no trace of acid, the equivalent of acid being replaced by the equivalent of water by diffusion (dialysis). This preparation is the nearest approach to the form of iron contained in the blood, and as it has no irritant properties it will doubtless prove to be the most valuable of all the forms in which iron can be administered. We have already given the preparation an extensive trial. Although a strong solution, it has scarcely any taste and is taken readily by children. It does not constipate nor disturb the digestion, whilst at the same time it produces all the good effects we are accustomed to recognize from iron in the other forms in which we have been accustomed to administer it.

The *solution* may be given in doses similar to the muriated tincture, that is, ten to fifteen drops, or for children about five drops. It may be given before meals, as it does not irritate the stomach.

It cannot be mixed with ordinary hard water, which causes it to flake or gelatinize, but it may be taken in distilled water or dropped on a piece of sugar. Not the least advantage of the dialysed iron is that it can be brought into contact with the teeth with impunity. It may be given with equal effect in the form of a *pill*, each pill being equal to ten drops of the solution, or as a *lozenge*, equal to two drops of the solution.

The Treatment of Leg-Ulcers (*The New York Medical Journal*, April, 1877).—Prof. Von Mosetig reports as follows on this sub-

ject. The treatment of ulcers of the foot (of which seventy-four cases occurred) was as follows: Varicose ulcers, when unclean, were dressed with carbolized glycerine (one to ten), until the ulcer was transformed into a clean, suppurating wound; then fomentations with tepid water were made, and occasional stimulation with lunar caustic. The patients were compelled to maintain absolute rest in bed, and when discharged were advised to wear a bandage on the whole extremity. In gangrenous ulcers, equal parts of carbolic acid and alcohol were applied, or the ulcer cauterized with Canquoin's chloride-of-zinc ointment. Ulcers with steep and indurated margins were stimulated by pressure with straps of adhesive plaster, while serpiginous ulcers were treated with red-precipitate ointment, and iodide of potassium internally. When the ulcer was situated directly over the tibia, Faure's method of lateral incisions, usually two half-elliptical incisions through the skin down to the fascia, at a distance of two to three centimetres from the margin of the ulcer, and extending beyond it, was used. The author never plugs the fresh incisions with lint, as he has observed that, if carried down to the fascia, they begin to gape themselves, while the ulcer rapidly diminishes and cicatrizes. He prefers Faure's method to that of Nussbaum's entire circumcision, as in one case of the latter gangrene of circumcised skin resulted. He has never had favorable results from skin-grafting in ulcers of the leg. Though the transplanted pieces of skin attached themselves, they were often dissolved or ulcerated even during the treatment, but invariably as soon as the patient attempted to walk.

Digitalis in Scarlatina (*The Medical Record*, February 3, 1877).—Dr. Daniel Lewis has used digitalis in thirteen consecutive cases of scarlatina.

The age of the youngest patient was ten months, of the oldest twelve years.

There was an abundant eruption in ten of the thirteen cases. Four patients had severe inflammation of the throat, with ulceration, diphtheritic exudation, and considerable glandular enlargement.

The temperature when the treatment was begun ranged from 103° to 106½°; pulse 120 to 148.

No suppuration of glands occurred in any case; the temperature was promptly reduced to 102°, or below; the pulse fell to 110–130, and there were no symptoms of nephritis, except in a single case. In that one the digitalis had been discontinued, and on the fifteenth day there was a sudden rise in temperature, convulsive movements in the muscles of the left side, and a trace of albumen in the urine.

The digitalis was resumed, and in twenty-four hours all bad symptoms subsided, and the patient made a good recovery.

Four of the patients died; one on the second day, in which eruption was hemorrhagic; two with scarlatina anginosa, on the fourteenth and seventeenth days respectively, in which no physician was called till the fifth day, the immediate cause of death being asthenia; and one after four weeks, who had acute diarrhœa.

Otitis followed in three cases, but was so slight as to require little treatment.

The infusion of digitalis was the preparation used in all these cases, in doses of ℥ss. to ℥j every four to six hours, the state of the pulse and temperature being the guides to the dose and period of administration.

The Pathology and Treatment of Chorea (*The Practitioner*, March, 1877).—O. Rosenbach states that he discovered the presence of several points very sensitive to faradaic but also especially to galvanic irritation, and to the pressure of the fingers, on the spinal column of a young girl, nine years of age, who suffered from a severe attack of chorea. Similar painful points, the electrical excitation of which produced the most violent reflex movements, were found in the course of the nerves supplying the affected muscles. R. believes that generally in chorea the spinal cord (and perhaps the brain) is affected, leading to neuritic processes in the nerves. The application of blisters to the different painful points, or of the anode of the galvanic current, caused them to disappear, and with their disappearance the spasms ceased.

Cauterization of the Pharyngeal Mucous Membrane in Amnesia (*Ibid.*).—M. Bilot, at a recent meeting of the Academy of Science, stated that he had obtained excellent results in certain cephalic neuroses, and especially in amnesia, by cauterization of the pharynx. He attributes the effects observed to the action indirectly exerted on the superior cervical ganglion.

MISCELLANY.

Remedies in Vogue.—The following statistics illustrate the tendency which has prevailed for the last few years to make a run on certain favorite remedies. In 1855, the central pharmaceutical establishment of the Parisian hospitals furnished 282 lbs. of chloroform; in 1875 the quantity had risen to 616 lbs. The increase of chloral, from 1869 to 1875, was from 10 to 720 lbs. Bromide of potassium, 6 lbs. in 1855; 1600 lbs. in 1875. Morphine, 1 lb. 6 oz. in 1855; 20 lbs. in 1875. The progress of alcohol, considered as a therapeutical agent, is especially worthy of notice. Between 1865 and 1875 the consumption of alcohol in the hospitals increased from 1270 to 40,000 quarts. Brandy does not appear on the list until 1862, when four quarts were supplied; in 1875 the quantity had risen

to 4108 quarts. Rum followed nearly the same rate of progression during the same time, from 35 to 5682 quarts. The white and red wines, supplied in very moderate quantities, followed the same proportions as alcohol. Among the vegetable narcotics (opium, aconite, conium), opium remained stationary at 300 to 400 lbs. per annum; but aconite, a remedy of late so much employed, particularly in England, represents a figure altogether insignificant. A remarkable fact brought to light by these statistics is that in proportion as alcohol rose leeches fell. Up to the year 1839, one million of leeches were annually supplied to the Parisian hospitals; during the last twelve years the annual supply has been about fifty thousand.—*Medical Examiner.*

The Influence of Excreta in the Production of Typhoid Fever.—At the sitting of the Paris Academy of Sciences, February 26, M. Guérin communicated the results of a series of experiments made to test the supposed direct influence of water-closets in producing typhoid fever. He experimented upon rabbits, injecting fecal matter, urine, blood, etc., from typhoid patients, and summarizes his conclusions as follows:

1. The fecal matter contains, after issuing from the system, a toxic principle capable of causing death in a class of animals, in time varying from a few hours to a few days.

2. The same holds good for urine, blood, mesenteric liquid, and the detritus of mesenteric ganglions, and of ulcerated intestinal mucus of typhoid subjects.

3. These matters, after some months, are found to retain in large measure their original toxical principles.

4. The fecal matter of healthy subjects, or of those affected by other diseases, has not the toxical principles which appear in excrementitial products of typhoid subjects.—*The Doctor.*

A FURTHER SUPPLEMENT

To an act to provide for the admission of certain classes of the insane, into hospitals for the insane in this Commonwealth, and their discharge therefrom, approved April 20, 1869. *Approved March* 23, 1877.

Section I.—*Be it enacted, etc.*, That if any physician shall falsely certify to the insanity of any person, under the provisions of the first section of the act to which this is a supplement, and it shall appear in evidence that such false certificate was the result of negligence or deficient professional skill on the part of said physician, or that the said physician signed such certificate for a pecuniary reward or for any other consideration of value whatsoever, other than the professional fee usually paid for such services, or in which such false certificate shall tend in any manner, directly or indirectly, to advantage said physician other than relates to the said professional fee, then the said physician shall be guilty of a misdemeanor, and on conviction be fined not exceeding five hundred dollars, or undergo an imprisonment not exceeding one year, or both, or either, at the discretion of the court.

Algæ of the Pontine Marshes.—Two Italian physiologists, MM. Lanzi and Terrigi, have been making a series of systematic microscopical examinations of the algæ growing in the Pontine marshes and the Campagna at different seasons of the year. As the marshes dry up, the algæ decompose, and give rise to the existence of large numbers of dark granules, which MM. Lanzi and Terrigi pronounce to belong to Cohn's sphærobacteria, and to be identical with the pigment-granules found in the liver, spleen, and blood of persons who have died of malarious fever. These dark bodies are not only found in the decaying algæ, but in the air around them, to the height of a foot or two above the surface of the marsh. Be this as it may, it is certain that the prevalence of malarious fevers is always connected with the drying up of the marshes and the slow decay of the algæ growing in them. A fuller account of MM. Lanzi and Terrigi's researches may be found in the *Monthly Microscopic Journal* for February.

The Treatment of Acne with Sand.—Dr. Ellinger (*Wiener Med. Wochenschrift*, No. 45) strongly recommends frictions of the skin with fine sand in the treatment of comedo and acne of the face in young persons. The sand should be regular in grain, not dusty, and not containing lumps; particles half as large or as large as a poppy-seed should alone be used. Before the friction the skin must be thoroughly washed with soap and water. It is then to be kept damp for half an hour, and finally the affected parts are to be rubbed for a short time with the sand, which is to be used slightly wet. Afterwards any adhering sand must be sponged or brushed away.

Simple Method of Testing the Purity of Chloroform.—Dr. Luecke, of Strasburg, gives the following simple method of testing the purity of chloroform. Immerse a small piece of thin white blotting-paper into the chloroform, and then let it dry in the air. As soon as all the chloroform has evaporated, the paper will not present the least smell if the chloroform is pure. If there is any acid smell perceptible, it indicates the presence of butyric acid in the chloroform, and as a rule has the strong characteristic of that substance.

Lotions for Urticaria.—Prof. Hardy recommends (*Union Méd.*, May 20) the following lotion, to be applied several times a day in order to allay the itching in urticaria: chloroform ten, and oil of sweet almonds thirty parts. In obstinate cases he prescribes corrosive sublimate, one-tenth to one-seventh of a part; alcohol, ten parts; and distilled water, ninety parts. He gives also internally alkaline medicines, and if these do not prove efficacious he resorts to arsenic.—*Med. Times and Gaz.*

NIGROSINE INK.—A correspondent of the *Druggists' Circular* sends a formula for a black ink which is not spoiled by being frozen, having no corrosive effect on steel pens, flowing freely, little liable to clog, and, when dry, not affected by water. It is composed of nigrosine, ten grains; alcohol, two drachms; water, two ounces. Mix, let stand for two days, and filter.

MISTURA ALBA.—According to the *Pharm. Jour. and Trans.*, the *Mist. Alba* of the King's College Hospital Pharmacopœia is composed of magnes. carb., ten grains; magnes sulph., sixty grains; aq. menth. pip., one fluidounce.

SIR THOMAS CHAMBERS recently presented in the House of Commons a petition from "The Order of Daniel," Brompton Square, in favor of sending out a new Arctic expedition, composed of men who did not use either flesh food, alcohol, or tobacco.

DR. ROBERT E. ROGERS has been elected to the chair of Chemistry in the Jefferson Medical College.

Dr. L. Turnbull has been appointed aurist to the Jefferson Medical College Hospital.

Professors Francis Gurney Smith and John Neill have resigned respectively the chairs of Institutes and of Clinical Surgery in the University of Pennsylvania, on account of failure of health.

IN 1875 the horse-butcheries of Paris furnished for public consumption 6865 horses, asses, and mules; in 1876 they furnished 9271, giving 1,685,470 kilogrammes of net meat. At Lyons the number has diminished from 1262 in 1875 to 1088 in 1876. On the 1st of January there were fifty-eight butcheries in Paris and only seven in Lyons. At its meeting January 9, the committee *de la viande de cheval* decreed a silver medal to M. Chambéry, who opened the first horse-butchery in Lyons in 1867, and a gold medal to M. Tétard, who has nine butcheries in Paris. Moreover, the lovers of horse-flesh wish the English to practise its consumption, and M. Decroix, the founder of this committee, has placed at its disposal the sum of eleven hundred francs to encourage the person who shall open and operate the first horse-butchery in London.

M. A. CASSON proposes (*Bull. Gén. de Thérap.*) the following formula: For a solution—salicylic acid, 1 drachm; citrate of ammonia, ½ drachm; rum or brandy, 1 ounce; distilled water, 5 ounces. A tablespoonful of this solution will contain from four to four and a half grains of salicylic acid. The citrate of ammonia is easily prepared by saturating ammonia in a solution of citric acid.

ACCORDING to a series of analyses by chemists in Maine, New York, New Orleans, and other places, the "opium antidote" of S. B. Collins, of La Porte, Indiana, contains a very large percentage of morphia. There seems to be no doubt that all the "opium antidotes" offered to the public are similarly fraudulent.

DR. BROCHARD, of Paris, protests against the use of raw meat as food for infants. In some difficult cases of weaning it may be useful, but he has never found it necessary, and believes that it very frequently produces tænia.

MR. ERASMUS WILSON is to bring Cleopatra's Needle to England at his own expense. It must pay to be a *superficial* doctor abroad.

CHLORAL hydrate is growing in favor as a local anæsthetic and stimulant in cancerous and other painful ulcers. The solution may vary from twenty grains to a drachm to the ounce.

DR. JOHN FINSON, a practising physician in Iceland, states that he has never seen a case of syphilis in a native Icelander.

THE Edinburgh medical students recently howled out a Mr. Childs who had come to Edinburgh from London to enlighten the Scotch public on the enormities of vivisection.

THE famine still rages in India. The mortality in the relief camps is said to be at the rate of 90 per cent. per annum.

IT is stated that a company of London capitalists has been formed to found a seaside city in accordance with the model furnished by Dr. Richardson's Hygeopolis. We trust hard fate will never drive us to live there.

CORRECTION.

In our issue for March 17, No 243, p. 270, the 16th and 17th lines of Dr. Davis's article on Compound Dislocation of the Knee were accidentally transposed after the reading. The sentences should read, "The patella and the head of the tibia were thrown up beyond their natural level, resting on the anterior surface of the femur. The patella had sunk down behind the head of the tibia, into the hollow in front of the joint." Also in the 20th line of the same article, for "tendons of the extensor muscles were," read "tendon of the extensor muscles was".

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM APRIL 22, 1877, TO MAY 5, 1877, INCLUSIVE.

PROMOTIONS.

SLOAN, WM. J., LIEUT.-COLONEL.—To be Colonel and Surgeon, vice McCormick, deceased.

PERIN, G., MAJOR.—To be Lieut.-Colonel and Surgeon, vice Sloan, promoted.

HUNTINGTON, D. L., CAPTAIN and ASSISTANT-SURGEON.—To be Major and Surgeon, vice Perin, promoted.

FORWOOD, W. H., SURGEON.—Assigned to duty at Columbia, S. C. S. O. 83, Department of the South, April 26, 1877.

PHILLIPS, H. J., ASSISTANT-SURGEON.—Granted leave of absence for six months on Surgeon's certificate of disability, with permission to go beyond sea. S. O. 91, A. G. O., April 28, 1877.

HEIZMANN, C. L., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Wadsworth, N. Y. H. S. O. 96, Military Division of the Atlantic, May 2, 1877.

GIRARD, A. C., ASSISTANT-SURGEON.—Assigned to duty at Fort Randall, D. T. S. O. 54, Department of Dakota, May 1, 1877.

SHUFELDT, R. W., ASSISTANT-SURGEON.—Ordered to Fort Laramie, Wyoming Territory, there to await further orders. S. O. 51, Department of the Platte, April 19, 1877.

MCCORMICK, CHAS., COLONEL and SURGEON.—Died at New York City, April 28, 1877.

PHILADELPHIA, MAY 26, 1877.

ORIGINAL LECTURES.

ASPIRATION IN COMPLICATED CASES OF PLEURAL EFFUSION.

BY WILLIAM PEPPER, M.D.,
Professor of Clinical Medicine in the University of Pennsylvania.

Reported by S. M. Miller, M.D.

LECTURE I.—PYO-PNEUMOTHORAX.

IT is my intention in the present lecture, and in others to follow, to speak of the use of the aspirator in the treatment of difficult cases of pleural effusion. The case which I shall consider to-day has the following history:

Case I.—C. H., 24, single, clerk, was admitted to Philadelphia Hospital on March 30, 1876. Had lost sister and aunt by acute phthisis. His own health was good until last Christmas (1875), when after a severe wetting he had a light chill, followed by a slight cough with but little expectoration. The cough persisted without hæmoptysis, and with only gradual failure in general health, until May, when marked dyspnœa was superadded to the other symptoms. The patient first came under my care in October, 1876, when examination revealed the following condition: marked distention of left half of chest, the right semi-circumference measuring sixteen, the left eighteen inches on line of nipple. The mobility of the right chest in expansion was one and one-quarter inches; of the left only one-quarter inch. The apex-beat of the heart was in the fifth intercostal space, midway between the right border of the sternum and the line of the right nipple, but the impulse of the heart was extended and reached from this point up to the fourth interspace and out to beyond the nipple-line. There was also a distinct second centre of impulse in the third interspace, midway between the right nipple-line and the sternum. The percussion of the right chest was normal: over the left chest there was tympanitic resonance down to the third interspace, below which there was flatness anteriorly and posteriorly. The lower intercostal spaces bulged slightly, and the level of dulness changed by changing the position of the body: when lying on his back, there was tympanitic resonance over the whole anterior part of the left chest. On the right side there was exaggerated vesicular murmur. The left side showed entire absence of respiratory sounds from apex to base. Occasionally during respiration there was distinct metallic tinkling, which was heard most markedly over the third interspace anteriorly; cough developed intense succussion-splash.

The diagnosis was empyema with pneumothorax probably connected with tubercular disease of the lung. The patient had by this time lost considerable flesh, and suffered from hectic fever, with much dyspnœa and disturbance of cardiac action. On October 4, f℥lxxxiv (84) of thick, fetid pus were drawn off by the aspirating needle, introduced through the seventh interspace on a line with the anterior border of the axilla.

The operation was followed by marked relief: the distention of the left chest disappeared, and the apex-beat returned to the left of the sternum. It was evident, however, that the lung was incapable of expansion, and, though no air was admitted by the operation, the physical signs showed the existence of extensive pneumothorax, the pus which had been withdrawn being replaced by air or gas. In the course of the next six weeks the pus reaccumulated, and when it had reached the second interspace the serious symptoms of respiratory embarrassment returned. A fine drainage-tube was now passed round the seventh rib by means of a large curved needle, and was allowed to remain, one end coming out in the sixth and the other in the seventh interspace. A poultice was applied, and the pus was allowed to discharge. The patient was much relieved, but the discharge continued profuse and offensive, despite injections of various kinds. The cough grew worse, with purulent sputa, and signs of tubercular deposit appeared at the right apex. After a period of progressive debility, with anorexia, hectic fever, and emaciation, he died in December.

At the post-mortem examination the right lung presented scattered tubercles at the apex, which in several points had begun to soften; the lower lobe was still healthy. There were some slight pleural adhesions, but no effusion. The left pleural sac was distended with fetid gas, and contained f℥xxiv of thick, offensive pus. The left lung was greatly contracted from pressure, and on section showed a state of extreme carnification, with numerous tubercular granulations scattered throughout the tissue, some gray, others yellowish and softening. The pleura was much thickened, and both pulmonary and costal surfaces presented a shaggy appearance. Upon inflating the lung, air was found to escape at two points, where there was a minute ulcerative destruction of the pleura, due to softening of superficial, subpleural tubercles. The liver and kidneys were enlarged and fatty.

The recognition of the pyo-pneumothorax in this case was sufficiently easy. The tympanitic resonance over the left apex was distinguished from the pseudo-tympanitic resonance often heard over the upper lobe in cases of considerable pleural effusion, by its purely tympanitic character, and in addition there were the absence of

respiratory sounds and the occurrence of metallic tinkling. The presence of a large amount of pus free to move in the pleural cavity was easily detected by the distention and immobility of the side, the bulging of the intercostal spaces, the marked displacement of the heart, and the dulness varying with the changes in the position of the body.

A more difficult question was the determination of the source of the gas, as well as of the essential nature of the primary disease. The occurrence of putrefaction of a pleural effusion, with the development of gas, without any communication with the air, may perhaps be admitted as possible, but is at least so rare an event that it is safer to assume in any given case, as in the present, that the gas has been admitted to the pleural sac from without. The only way in which this could be effected here was by perforation of the pulmonary pleura. In order to arrive at a correct idea of how this occurred, it is necessary to turn to the history of the case, as well as to bear in mind the existence of a large empyema when the patient first came under notice. The family predisposition to phthisis, the occurrence of dry hacking cough continuing for several months, with gradual failure in health, naturally led to the suspicion that the attack began as one of phthisis of the left lung. The first thought—viz., that there had been a primary suppurative pleurisy which had led to perforation of the pulmonary pleura and to the development of pyo-pneumothorax—was disproved by the mode of attack, and in addition by the fact that at no time had there been such copious purulent expectoration as would have existed had free communication been established between a large empyema and the pulmonary tissue.

Pulmonary phthisis may become complicated with pyo-pneumothorax in two ways. A superficial vomica may rupture into the pleural sac, and air and pus gain entrance thereto, or a small sub-pleural tubercle may soften and lead to perforation of the pulmonary pleura, cause the escape of air, and thus induce a pleurisy which in the cachectic state of the system is likely to be attended with purulent formation. It is rarely that a superficial vomica exists without the occurrence of pleural adhesions which would prevent the entire collapse of the lung and the development of large pyo-pneumothorax, such as here existed. Moreover, the short duration of pulmonary symptoms before the appearance of the evidences of pleural effusion, and particularly the absence of purulent expectoration or hæmoptysis, went to show that there had not been a vomica of any size in this case. On the whole, therefore, it seemed most probable that the original condition had been one of disseminated tuberculous disease of the left lung; that a small sub-pleural nodule had softened and ulcerated through the pleura and allowed the escape of air, causing a pneumothorax; that subsequently pleurisy was developed, with the formation of a gradually increasing amount of pus. It will be seen that the post-mortem examination confirmed this view in every particular. The thick layers of false membrane which had been formed over the pulmonary and costal pleuræ partially covered the minute openings in the pleura, of which but two actually existed. While, therefore, some air was clearly able to escape from the vesicular structure of the lung into the pleural sac, as was shown by the increase in pneumothorax following the first paracentesis, there was no fistula through which the pus in the pleura could freely escape into the bronchial tubes and be expectorated.

A few words must suffice for the important questions that arose in connection with the treatment of this case. It may, I believe, be laid down as a general rule that, in pyo-pneumothorax connected with pulmonary phthisis, paracentesis should not be performed unless the collection increases to such an extent as to cause imminent danger. The reasons of this are to be found in the essentially incurable nature of the primary lesion; in the impossibility of preventing a reformation of the effusion; and, lastly, in the fact that when a lung, the seat of phthisis, becomes compressed by a pleural effusion, the progress of the pulmonary lesion is for the time usually checked. In the present case the absence of any careful examination of the patient in the early stage made it impossible to be certain that phthisis had existed, though the general considerations above given rendered it probable. It was, however, possible that the pleurisy had been primary, that it had caused a minute perforation into the lung-tissue, and that this had closed after allowing the entrance of a

certain amount of air to the pleura. Again, the very large amount of the effusion, and the serious interference it was causing with respiration and circulation, began to render interposition necessary. The operation was undertaken, therefore, as a tentative measure, in the hope that it would be followed by some expansion of the lung. The failure of this to occur confirmed the diagnosis that had been made, and rendered hopeless any future operative treatment. The drainage-tube was, however, introduced at the urgent request of the patient, in the hope that by maintaining a free discharge relief might be afforded to the distressing dyspnœa. The rapidly fatal progress of the case afterwards seemed to show that this was no exception to the general rule above stated, and that this last operation should probably have been declined.

ORIGINAL COMMUNICATIONS.

ON A NEW FUNCTION OF THE LIVER.

BY B. F. LAUTENBACH, M.D.

WHEN the portal vein of an animal is tied immediately before its entrance into the liver, the animal passes into a state resembling that following a fatal dose of one of the narcotics,—morphia, for example,—from which it differs, however, in that there is not a direct production of sleep, but an abolition of sensibility which predisposes to sleep. The animal remains in this state until its death, which occurs—always without convulsions—in the dog in from a half an hour to four hours, and in the rabbit and cat even earlier.

Usually after death the spleen is found enormously gorged with blood, as are also the walls of the stomach and intestines. The liver, on the contrary, is found to contain almost no blood, being much paler than normal. The gall-bladder is empty.

At times the engorgement is but slightly developed, or entirely absent, in which cases I have always found a communication of one of the veins of the portal circulation with one of those of the general circulation, this easily explaining why the stasis did not occur. In one experiment where this engorgement was not found, the vena parumbilicalis (Schiff, Sappey)—which exists in mammals throughout life—was very much enlarged, and a communication of it with one of the mesenteric veins was also very large, thus forming a new portal circulation.

In a series of experiments, a large number of which were made in connection with Professor Schiff, I tied the vena porta of mammals nearly sixty times, and always obtained the same symptoms. These symptoms are in brief the following:

A great tendency to sleep, owing to the abolition of both tactile and general sensibility.

A diminished frequency in the beat of the heart, and an increased, followed by a decreased, arterial pressure.

Paresis of the heart-arresting fibres of the pneumogastrics, so that irritation of the sympathico-vagi trunks will no longer cause cessation of the heart's movements. In this connection it must be stated that, following the ligature, contractions of the diaphragm occur isochronous with the beat of the heart, and disappear when the left phrenicus is lifted off the pericardium, to occur again when this is again brought in contact with the heart. I have frequently observed this symptom in animals that have been poisoned with drugs which produce paralysis of the heart-arrestors; and I have shown* that this phenomenon is due to an electrical current which is developed in the muscles of the heart and conducted by the left phrenic nerve (the right not being in contact with the pericardium, its presence or removal has no effect on the contractions) to the diaphragm.

A great diminution in the number of the respiratory movements, which frequently become stertorous.

Shortly before death a most curious symptom can frequently be observed. The animal has ceased to respire for several minutes, there is no heart-beat to be felt, and to all purposes the animal is dead: if, however, you now draw on the trunk of the carotid slightly downwards, the animal frequently commences again to breathe, and the heart-beat again becomes manifest, to cease again after several minutes. Should artificial respiration be resorted to, the beat of the heart would continue for an indefinite period of time.

In the cold-blooded animals a different result is obtained. I have extirpated the

* Phila. Med. Times, March 31, 1877, p. 296.

livers of more than a hundred frogs and found none of the characteristic symptoms which occur after tying the vena porta in mammals; but, as will be shown later, evidence enough was obtained to show that the system was no longer in its normal state. This is also indicated by the circumstance that in a number of experiments where the hepatic vena cava (vena porta) of frogs was tied, similar results to those following the same operation in mammals were obtained.

Having seen the effects that ligature of the vena porta produces, it remains now to seek their cause.

That they are not due to the accumulation of blood in the portal circulation and a consequent diminution in the quantity going to the other portions of the body was determined in the experiments where I tied the hepatic veins, which carry all the blood from the liver to the vena cava, and found that this produced absolutely no symptoms.

If death in these cases were due to anæmia, convulsions would invariably precede the fatal termination; yet I have never met with convulsions following this operation. The study of the arterial pressure also shows that this theory is not the true one. On watching the blood-pressure in the manometer it is found that after the ligature the column of mercury rises to nearly double the height it had before.

Nor do the symptoms occur when the biliary ducts are ligated; and consequently they cannot be explained on a theory of a retention of the biliary matters in the system.

Again, the symptoms cannot be due to the formation, through decomposition, of sepsin in the liver, as, (1) the formation of this poison occupies a much longer time than the time which expires after the application of the ligature up to the appearance of the symptoms; (2) the expressed juice, so to speak, of the liver of an animal that has been killed by tying its vena porta has absolutely no poisonous properties; (3) in the experiments where the vena porta was tied and by means of a tube blood was passed from the renal artery into the portion of the porta above the ligature, thus supplying the liver with blood enough to certainly prevent decomposition, the animals died even more rapidly than when this was not done.

It is hardly necessary to state that the ligature of the vena cava produces none of the characteristic symptoms which follow the vena porta ligature.

Having given and disproved some of the theories which may possibly be advanced to explain the interesting symptoms following this ligature, there remains to be given that which I believe to be their true explanation.

Certain animals—some of the snake species and many insects—secrete normally, and others—the dog and cat in the hydrophobic state—secrete under pathological conditions very virulent poisons, the presence of which in some animals and not in others has never been satisfactorily explained. May its explanation not be found in the results of the experiment to which I have just alluded? *i.e.*, may not all animals have a poison formed in their system, which were it not excreted, as in the snakes and other animals, or destroyed by certain organs, the animals would rapidly succumb under its influence?

In this paper an attempt will be made more especially to prove that the symptoms following ligation of the vena porta are due to the accumulation in the blood of a poison which under normal conditions is destroyed by the liver.

If such a poison exists in the blood of an animal in whom the vena porta has been tied, the injection of a small quantity of this blood, though of course it could have no effect on any of the higher animals,—the operated animal dying just as soon as a sufficient accumulation of the poison has taken place to produce a cessation of the vital processes, and no fractional portion of its blood could possibly have decided effect on another animal of its class,—might have some effect on the frog, and especially on the frog whose liver had been extirpated.

In thirty-four experiments I injected from one and a half to three cubic centimetres of blood taken from the vena porta, the vena cava, the vena jugularis, and from the right ventricles of dogs dying from ligature of the vena porta, into the lymph-sacs of the thighs of frogs, and these animals always exhibited symptoms analogous to those following the ligature of the vena porta in the higher animals, and almost always died within three hours.

As control-experiments, venous blood was always taken from the animal whose

vena porta was about to be ligated, and injected into liverless frogs, and never were there any symptoms to be observed.

Nor did the blood of animals in whom the vena cava was tied, or from animals in whom a sling was placed around the vena porta without its being ligated, produce the slightest effect on frogs.

The following are illustrative experiments:

Animal.	Injection.	Operation.	Time.	Symptoms.
Dog, 22 lbs.		A sling around the vena porta; not ligated.	3, 3, 1877. 4.20	
R. esculenta. R. temporaria.	2 c.c. of blood from the v. jugularis was injected into two frogs in whom the liver had been extirpated.		3, 4, 1877, 10.04	
			11.00	No symptoms.
			12.00	No symptoms.
			3.00	No symptoms have been produced in either the dog or the frogs.
		Vena porta ligated.	3.35	
			3.45	Animal has passed into a state of somnolence. Irritation of the pneumogastrics does not produce arrest of the heart-beat.
R. esculenta. R. temporaria.	2 c.c. of blood from the vena jugularis was now injected into two other frogs in whom the liver had been removed.		3.48	
			3.54	When placed on their backs the frogs are unable to re-attain the abdominal position. All the movements are incoordinate.
			4.22	The animals are dead.

The blood of an animal in whom the vena porta has been tied must therefore contain a violent poison which does not exist to an appreciable extent in the blood of normal animals, but accumulates just as soon as the vena porta is tied.

All attempts which I have made to isolate this poison have proved futile, owing to its great volatility or destructibility; heating the blood but slightly in a water-bath is frequently sufficient to cause it to lose its poisonous properties.

It will no doubt occur to the reader, as it did to the author, that the vena porta poison is not the only poison which can be destroyed in its passage through the liver. Having frequently observed in my experiments with nicotine that it is almost impossible to kill an animal by giving this drug by the mouth, it seemed plausible that this is such a poison.

Nicotine.—Having determined that one drop of this poison injected into the general circulation would kill even a large-sized dog, the author in a number of dogs injected this poison so that it had to pass through the liver before it could enter the general circulation. This was done sometimes by injecting into the small intestine, and sometimes by injecting into the mesenteric and splenic veins.

The following are the results obtained by this method of experimentation:

One drop of nicotine injected into the mesenteric or splenic vein of a dog produces deep sonorous respiratory movements; an increased frequency and feebleness in the heart-pulse, so that at times it becomes imperceptible; retraction of the bulb of the eye, and a protrusion of the nictitating membrane; but the most characteristic symptom is the loss of sensation and especially the loss of the sense of touch. The animal in this respect resembles an animal in whom both the anterior hemispherical lobes of the brain have been extirpated; in walking it evidently does not feel the floor, as it frequently rests on the dorsal instead of on the plantar surface of its feet, and strong electrical irritation of the sciatic nerve does not dilate the pupil, this latter being the most delicate test to determine the absence of sensibility. Usually in fifteen minutes, but certainly in an hour, the animal has recovered, and acts like a normal dog. Even two drops of nicotine fail to kill a dog when injected into one of the veins of the portal circulation, or, what is really the same thing, into the intestine.

An injection of one drop of this drug into the subcutaneous connective tissue, or into a vein of the general circulation, produces all the symptoms just given as being present when the injection is made into one of the veins of the portal circulation;

but, in addition, intense prostration, trismus, general tetanus, and death frequently occur within one minute after the injection.

These results will be best seen in the following experiment:

Animal.	Injection.	Symptoms.
Dog, 10 lbs.		Respirations, 18–21. Pulse, 120. Temperature, 39°.60 (C.)
Time.		
11.55	Nicotine one drop into a mesenteric vein.	In a very short time the pulse rose to 204; the respirations became sonorous, the temperature descended to 37°.97 (C.) Retraction of the bulb of the eye and protrusion of the third membrane. On walking, the dog shows symptoms of a loss of the tactile sense; *i.e.*, the animal drags its feet, and frequently sets them down on their dorsal instead of on their plantar surface.
12.10		Respirations very strong; pulse 156, feeble, and felt only during inspirations.
12.35		Pulse 150; respirations 22; pupil small and reacts to light.
12.40		Pulse 23, resp. 20.
1.00		The dog has completely recovered.
1.50	Nicotine one drop into a mesenteric vein.	Immediately after the injection,—pulse 37, 36, 25, 22, 19, 15, in ten seconds; loss of tactile sense; respirations sonorous. Nictitating membrane protruded.
2.40		The dog has again recovered.
5.07	Nicotine one drop into a subcutaneous vein of the posterior extremity.	Tetanus; trismus; pulse 210; respiration difficult. Death in one minute.

In the normal dog one-half drop of nicotine never produces death; but in dogs whose vena porta has been tied the author found that trismus and tetanus were produced, and death usually rapidly occurred, when but one-fifth drop was injected.

In normal frogs of the esculenta and temporaria species, an injection of one-tenth drop of nicotine into the general circulation always caused death under similar symptoms to those occurring in mammals. One-twentieth drop always produced marked symptoms, but never death. In frogs, however, whose livers had been extirpated, even one-fortieth drop produced death, as will be seen in the following experiment:

Animal.	Injection.	Operation.	Symptoms.
R. esculenta. Feb. 1, 1877.	Nicotine one-twentieth drop into the lymph-sac of the thigh.		
Feb. 2, 9.14 A.M.		Extirpation of the whole liver.	The animal was slightly ill, but soon recovered.
10.00	Nicotine one-thirtieth drop into the lymph-sac of the thigh.		
10.04			All voluntary movements have ceased. Pulse reduced from 48 to 27. Paralysis of the tactile sense.
10.16			The frog is dead. Nerves and muscles respond to irritation.

How else can these experiments be explained except on the theory that the presence of the liver is necessary for the destruction of the poison? The word destruction, and not elimination, is employed, because the author found that tying the gall-ducts of the frog did not in the least influence the quantity of the poison necessary to produce death.

In a large number of experiments one-fortieth drop of nicotine was injected into normal frogs without producing any symptoms whatsoever. Four hours after the injection the entire livers of the animals were removed, and twenty-four hours later one-fortieth drop was again injected, when, under symptoms of nicotine-poisoning, the animals died.

Against these latter experiments it cannot be said that possibly a second dose is more poisonous than the first, as I always found in unoperated animals the symptoms following a second much less marked than those following the first injection.

One-fifth drop of the drug injected into the intestine of a frog produced slight symptoms of loss of sensibility, but if now the liver of the frog was removed, and a day later the same dose again injected into the intestine, rapidly fatal symptoms were produced.

In the next series of experiments my object was to see if the fatal dose remained the same when the activity of the liver was increased by being placed in a hyper-

æmic state. To make the liver hyperæmic the author availed himself of an anatomical peculiarity in the frog. In the frog the liver does not receive the whole venous blood of the abdomen: only a portion of it is carried to the organ by the hepatic vena cava, while another portion is conveyed directly to the heart by a second vena cava without passing through the liver. To produce hyperæmia of the liver it is sufficient to force all the venous blood of the abdomen to traverse the liver; and that was accomplished by tying the second or superior vena cava.

When now one-tenth drop—the fatal dose for a frog—was injected, not the slightest symptom was observed, nor would one-fifth drop produce death. From this we see that a greater activity of the liver causes a larger quantity of the poison to be destroyed.

The following experiment is characteristic of this series of experiments:

Animal.	Injection.	Operation.	Symptoms.
R. esculenta.		Ligature of second v. cava.	
Time.			
9.17			
11.00	Nicotine one-tenth drop into the lymph-sac of the back.		
1.25			No symptoms have occurred up to this time.
2.00			No symptoms
3.00			No symptoms

The following experiment shows that in the normal frog one-tenth drop of nicotine produces death:

Animal.	Injection.	Symptoms.
R. esculenta.	Nicotine one-tenth drop into lymph-sac of the back.	
Time.		
9.03		Slowing of the pulse, abolition of the tactile sense, and absence of voluntary movements.
9 31		Death.

Thinking it possible that the mere intimate contact with the liver-substance would be sufficient to cause the nicotine to lose its poisonous properties, the author made a large number of experiments by macerating the livers of dogs and rabbits with from three to five drops of nicotine, the expressed juice of the macerated mass then being injected into dogs and frogs. As will be seen in the following experiments, the fatal symptoms were, under these circumstances, never produced:

(1). "The liver of a newly-killed rabbit was taken and macerated with ten cubic centimetres of water and three drops of nicotine. The expressed juice of this mass was then injected into the cellular tissue of the posterior extremity of a dog weighing eleven pounds.

"In a short time the dog showed the respiratory symptoms; the protrusion of the third conjunctival membrane; dilatation of the pupil and the loss of the tactile sense; but none of the alarming narcotic and tetanic symptoms occurred; and in several hours the dog had recovered."

(2). "The liver of a dog who had died forty-eight minutes after his vena porta had been tied, was macerated with three drops of nicotine, and one-third of the expressed juice was injected into each of three liverless frogs.

"After thirty minutes, slight symptoms of nicotine-poisoning appeared, but these symptoms soon passed off."

After having found that the expressed juice of the kidney itself is not poisonous, the author as control-experiments macerated the kidneys of healthy animals with but two drops of nicotine, and the expressed juice produced the death of the animals into whom it was injected.

From these facts the author feels justified in believing that nicotine contains two poisons, one of which produces the non-fatal symptoms which so closely resemble those of locomotor ataxia. This poison is not at all affected by the liver. The other poison producing the tetanic symptoms and rapid death is entirely destroyed in passing through the liver.

Another explanation which we may get from these experiments is of the comparative absence of danger which attends the bringing of tobacco into the stomach through tobacco-chewing, as compared to the danger of inhaling the fumes of tobacco into the lungs. In the latter case the nicotine directly enters the general circulation, while in the former, owing to its having to pass through the liver, but little of the poison can enter the circulation.

Hyoscyamia.—In examining the other poisons for one which was wholly destroyed

in passing through the liver, hyoscyamia was found to be such a one. One-half to three-quarters of a grain of this alkaloid will always kill a dog when introduced into the general circulation, under symptoms of diminution in the frequency of the pulse; paralysis of the sense of touch; paralysis of the heart-arresting fibres of the pneumogastrics; great somnolence, and even coma. In the experiments where one grain was injected into the portal circulation of dogs, absolutely no symptoms were produced; *i.e.*, a more than fatal dose had no effect when forced to pass through the liver before entering the general circulation.

The expressed juice from the livers of dogs, macerated with two to five grains of hyoscyamia, was injected into the general circulation of dogs and frogs, and no symptoms occurred. When, however, the kidney or spleen of a dog is macerated with but one grain of hyoscyamia, and the expressed juice is injected into dogs and frogs, these animals die under symptoms of hyoscyamia-poisoning.

In the frog one-twenty-fifth drop produces death under symptoms similar to those produced by the drug in the higher animals, with the addition of a very marked and peculiar slowing of all the movements of the animal. Following irritation of the nerves a longer time elapses before the muscles commence to contract, and when contracted they remain so longer than the contraction following the irritation of the nerves of an animal not poisoned.

One-fortieth drop produces but slight symptoms in the frog. If however, the same frog was taken twenty-four hours later and the liver extirpated and then but one-sixtieth drop of the drug injected, the animal showed very marked symptoms and died, thus showing again that the absence of the liver causes a much smaller dose of the drug to be poisonous than when this organ is present.

Hyoscyamia produces one symptom in the liverless frog which it does not produce in the normal frog. If we examine a frog who has been poisoned by hyoscyamia after the liver had been removed, we find that reflex movements continue until near death; but if we attempt to irritate the sciatic nerve we find the strongest electrical currents will not produce contraction of the muscles. That is, a nerve which is still able to conduct the impulse necessary to produce a reflex movement is itself not excitable by direct irritation. The explanation of this result will be found in the difference between the receiving and conducting powers of the nerves to which I have recently drawn attention.*

Some of the experiments which I made gave such strange results that it seemed as if some source of fallacy must exist. Carefully repeating these experiments again and again, and always obtaining the same results, convinced me that all doubts were unfounded. These experiments are so interesting that one will be given in full.

"At twenty minutes before two, one-sixtieth drop of hyoscyamia was injected into the lymph-sac of the thigh of a medium-sized frog of the esculenta variety. Slight slowing of the movements was the only symptom. At 4.00, the animal was as before the injection. At 4.55 its liver was extirpated, and at 4.58—but three minutes later—the animal showed great slowness in all its movements. When the posterior extremities were extended, in response to a slight irritation, it took 8″ for them to return to their normal position. When the animal was placed on its back it could not re-attain its abdominal position. In one hour the animal was perfectly motionless, and in three hours its heart had ceased to beat. After death, irritation of the nerves no longer produced contractions of the muscles; but direct irritation of the latter caused their contraction."

In this experiment the injection of the poison produced very slight symptoms, which disappeared after several hours. One hour after their disappearance the liver of the frog was removed, when immediately, and without any more of the poison being given, the animal showed intense symptoms of hyoscyamia-poisoning, followed by death.

For some time I was at a loss for a plausible theory to explain the results obtained in the experiments similar to the one just given. The hyoscyamia was circulating in the blood, and reaching all the organs which it could affect, in no greater quantity after than before the extirpation of the liver, and consequently it alone could not have produced these marked symptoms. There must have been another poison formed in the frog, which, combined with the small

* Philadelphia Medical Times, vol. vii. No. 243.

quantity of hyoscyamia still in the blood, produced these fatal symptoms. This poison could have been none other than the poison which I spoke of in mammals as the vena porta poison, thus showing that, though extirpation of the liver in frogs does not produce manifest symptoms, yet a poison is thereafter retained in the system which would have been removed by the liver had not this organ been extirpated.

We have seen from the previous experiments that neither of these two poisons alone—*i.e.*, neither the extirpation of the liver nor the injection of one-sixtieth drop of hyoscyamia—could produce this result in frogs, but a combination of the two, before the system had time to become accustomed to the presence of the "vena porta" poison, was necessary to produce the fatal result.

The great similarity in the effects of these two poisons is remarkable.

Hyoscyamia slows the movements, as also does the vena porta poison.

They both modify sensation.

They both produce a tendency to sleep.

They both paralyze the heart-arresting fibres of the pneumogastrics.

With either alone the nerves remain excitable until long after death, but with a combination of the two the nerves are still able to conduct impressions from the centres to the periphery, and thereby produce movements, but it is impossible to cause the nerves to conduct impressions applied to their trunks.

In the author's further experiments with hyoscyamia it was found that, while one-twenty-fifth of a drop was fatal to normal frogs, one fifteenth did not produce dangerous symptoms in frogs whose livers had been rendered hyperæmic by tying the second vena cava.

In hyoscyamia we have, therefore, an organic poison which is destroyed by the liver, as the author's experiments will certainly allow of no other conclusion.

Conia is another drug whose active properties the author found to be destroyed by the liver. As the experiments are not essentially different from those made with hyoscyamia, it will not be necessary to infringe on the reader's time and patience by giving them.

Recently, through the kindness of Dr. Mitchell, the author obtained a small quantity of the *venom of the cobra-snake*, with which a new series of experiments were made.

A fatal dose of this poison injected into the mesenteric vein of a cat produces no symptoms, although the same dose kills the same cat if introduced into the general circulation some hours later.

A dose which had produced no effect on a frog killed this frog when its liver had been removed.

A fatal dose was no longer fatal when the liver of the frog was made hyperæmic by tying the second vena cava.

The venom of the cobra snake is, therefore, also a poison whose active properties are destroyed by the liver. This is extremely interesting, as it will explain why the animal poisons when swallowed produce no symptoms.

Among the drugs which the author has found not to have their effect modified by the liver are curare, prussic acid, and atropia. As regards the latter, some doubts may be expressed, as it and hyoscyamia are frequently considered to be one and the same alkaloid; but this is not so, as the two differ in a number of respects as regards their physiological action.

The experiments which have been given show distinctly that some of the organic poisons are destroyed in passing through the liver, and it is probable that the number of poisons thus destroyed will not prove to be inconsiderable, it being a well-known fact that many of the alkaloids do not have the same effect when given by the mouth as when given hypodermically. By the former method the greater portion of the drug has to pass through the liver on its way to the general circulation, while by the latter all enters directly into the general circulation. It must not, however, be thought that every drug which does not produce its effects when given by the stomach is destroyed by the liver; as it is possible that they are not absorbed from the alimentary canal. This the author has found to be the cause of the non-action of curare and of the but partial action of atropine when thus given.

Before closing this article there is still one symptom to speak of that frequently follows the extirpation of the liver in frogs, which shows that, though this operation produces no symptoms which are apparent at first, nevertheless a poison is developed and operative.

Goltz,* nine years ago, found that when

* Functionen d. Nervencentren des Frosches, p. 1.

he removed the cerebrum of frogs and rubbed a smooth object along the back of the animal, or when he merely laid the animal on its back, it croaks each time that its back is rubbed, so that it would not be difficult to have the frogs of Aristophanes: any physiologist could with very little trouble have a frog chorus that would, to the amusement of the public, let their voices be heard when wished for. I have found that extirpation of the cerebrum is not necessary for the production of this symptom, but that the section of one of the pedunculi cerebri is all-sufficient. In the unoperated frog this croaking cannot be produced.

Goltz explains this experiment by saying that the rubbing excites reflexly the centres of the voice existing in the medulla oblongata, and when this is no longer influenced by the cerebrum, croaking will result; but when the cerebrum is present, this acts as an arrestor of reflex action, and consequently the croaking does not occur.

Many frogs who have been liverless for some days, when placed or when rubbed on their back croak even more constantly than a frog whose cerebrum has been removed. Of course no one would from this experiment be likely to infer that the liver is an arrestor of reflex action, although its removal causes an arrest on the reflex activity of the voice to be removed. But how then is the result obtained to be explained? The same symptom is to be observed in frogs poisoned with hyoscyamia. In these animals it must be due to some modifying influence which the drug has on the sensory-motor tracts of the brain, of which the fibres pass through the pedunculus on their way to the great gangliæ.

The same explanation must be given for the symptom occurring in liverless frogs, *i.e.*, a poison is also accumulated in these animals which, after several days, paralyzes the arresting influence which the cerebrum has on the reflex activity of the voice.

The experiments alluded to in the preceding paper have brought the author to the following conclusions:

1. *The liver has for one of its functions the office of destroying certain of the organic poisons.*

2. *A poison is being constantly formed in the system of every animal which it is the office of the liver to destroy.*

The experiments—two hundred and eighty-three in number—forming the basis of the foregoing paper were almost all made in the Physiological Laboratory of Professor Schiff, at Geneva, for whose kind assistance and advice the author most gratefully acknowledges his obligations.

ON THE DIAGNOSIS OF URETHRAL STRICTURE BY BULBOUS BOUGIES.

WITH ILLUSTRATIVE CASES.

BY J. WILLIAM WHITE, M.D.,

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DURING the last few years the methods of investigating the male urethra have undergone a decided change. It is no longer generally believed that the easy introduction into the bladder of a sound of twenty or twenty-one millimetres in circumference, or indeed of any fixed size, is sufficient to demonstrate the non-existence of organic stricture.* The great variability in calibre of different urethræ has been demonstrated, and has of course modified the methods used for exploration.

Strictures of extreme calibre have been recognized, both during life and at autopsies, and have been assigned their true position as important agents in the production of cystic and renal diseases and of many reflex disturbances of the most alarming character.

Contraction of the meatus urinarius has been found to be at once a more frequent and more serious pathological condition than was previously suspected,† and the absence in many instances of any definite

* Sir Henry Thompson is probably the most distinguished living surgeon who is not included in this assertion. His last utterance on the subject, so far as I am aware, was published in the London *Lancet* of December 11, 1875. He then said, "When a young man consults you for certain troubles, relative to which you desire to learn whether urethral obstruction be a cause or not, do not be tempted for an instant to adopt so unnecessary a course (to say the least) as the introduction of very large instruments or instruments with huge bulbs at the end of them. But simply take a flexible English gum-elastic bougie, well curved towards the point, with a blunt end, not larger, as a rule, than No. 10 or 11 of our scale, and pass it very gently and slowly into the bladder. If it goes easily,—above all, if it is withdrawn without being held, and slides out with perfect facility,—take my word for it, he has no stricture, and, *quoad* obstruction, wants no use of instruments whatever." As will be seen, however, by a foot-note on the following page, he testifies elsewhere to the great usefulness of the bulbous instruments in the determination of the existence of "any narrowing in any part of the urethra," an assertion which seems to me as much too absolute in one direction as is that just quoted in another. I infer from the context of his lectures on the urinary organs that he refers in this last remark rather to the locating of strictures already discovered than to their original detection.

† Mr. Furneaux Jordan, the London *Lancet*, January 29, 1876.

relation between this orifice and the rest of the urethra has been conclusively shown.*

As a result of these modifications of opinion, conical steel sounds, as explorers in cases of suspected stricture, have been largely supplemented if not supplanted by the flexible bulbous bougies of Leroy or the so-called *bougies à boule.* There can remain no reasonable doubt as to the great value of these instruments in detecting, locating, and measuring organic strictures of the urethra, and there is but one opinion expressed on this point by the majority of surgeons who have had their attention specially directed to urethral diseases.† In spite, however, of the unanimity of opinion among specialists as to this point, many valuable text-books of surgery entirely omit to mention these bougies, and many experienced practitioners neither recommend nor employ them.

It is in view of this fact that the subjoined brief extracts are presented, selections having been made from writers who cannot be accused of any special bias or violent partisanship in this connection. They might be multiplied indefinitely, but will suffice to indicate the estimate in which these instruments are held by those who have the most extended opportunities for their use.

A case which has recently occurred in my practice, and to which the subsequent post-mortem examination gives unusual interest, will probably be the best means of illustrating the value of bulbous bougies and the pathological importance of those strictures which cannot be detected without their employment, *i.e.*, strictures of extreme calibre.

A muscular, apparently robust man, æt. about 55 years, was admitted to my wards in the Philadelphia Hospital, suffering from a leg-ulcer. No urinary trouble was suspected until he was subjected to an examination for the purpose of verifying a theory to which I shall presently allude. He was then found to have a coarctation at the distance of four and a half inches from the meatus. There were no marked subjective symptoms whatever: micturition was possibly a little too frequent, and was not quite complete, a slight dribbling following the flow of urine, there were obscure lumbar and hypogastric pains, and occasional neuralgia of the glans penis; but these facts were elicited only after careful questioning. *A No.* 28 *steel sound passed into the bladder without the slightest perceptible difficulty*, but the patient complained of pain extending from the peno-scrotal junction to the perineum. An examination with a bulbous bougie, No. 24, revealed a stricture situated in the spongy portion of the urethra at the point mentioned, about four and a half inches from the meatus; No. 26, bulbous, could only be passed with great trouble.‡

Dilatation was commenced, but an attack of some intercurrent disease—pneumonia, I believe—caused the patient to be transferred by one of my internes to the medical wards, where he soon after died. At the autopsy I carefully removed the genito-urinary organs, on the appearance of which I have the following notes. The penis was of average size, the pendulous portion measuring about four and three-quarter inches in length and a little over three inches in circumference. (This would have fixed the normal calibre of the urethra, according to Dr. Otis's standard, at about thirty-one millimetres.§) Upon dividing it along the dorsum a band of fibrous structure was seen almost encircling the urethra four and a half inches from the meatus; extending from a point a little anterior to this back to the bulb of the corpus spongiosum and to the crura of the corpora cavernosa was an area of intense congestion, which persisted even after maceration of the specimen in chloral solution for two weeks and was then plainly noticeable across the room at a class demonstration; bladder dilated and hypertrophied; meatus slightly dilated; kidneys healthy; no enlargement of the prostate. Two small patches of ulceration existed on the

* Dr. F. N. Otis, *New York Medical Journal*, April, 1876.

† "With the bulbous bougies of various sizes you may determine the existence of any narrowing in any part of the urethra with great accuracy, and for many years I have never operated without employing them carefully beforehand."—Sir Henry Thompson, "On the Urinary Organs," p. 49; "Stricture of the Urethra," p. 148.

"A far better and more accurate means of exploration, and the only one which conveys any reliable idea of the extent and multiplicity of strictures, is the soft exploratory bulbous bougie."—Gross, "On the Urinary Organs," p. 462.

"The French *bougies à boule* afford the only means available (aside from the endoscope) of detecting slight urethral contractions."—Bumstead on "Venereal Diseases," p. 270.

"The bulbous bougie is an instrument essentially necessary for the diagnosis of stricture."—Van Buren and Keyes on "Genito-Urinary Diseases," p. 107.

"The urethra should be carefully examined by a sound with an olivary point, for stricture is far more readily detected by such an instrument than by an ordinary sound."—Berkeley Hill, "On Venereal Diseases," p. 369.

"Although the *bougies à boule* have some inconveniences, and can furnish only incomplete information, they still remain the best instrument we possess for exploring the urethra."—M. Voillemier, "Traité des Maladies des Voies urinaires," Paris, 1868.

‡ It may be remarked, *en passant*, that the weight of the steel instruments and their very gradual increase in diameter from the point to the shaft give them a dilating power so much superior to that of the flexible bougies that a difference of from four to six numbers almost invariably exists. That is, a stricture not markedly resilient or elastic, which will admit with slight resistance a bulb twenty-four millimetres in circumference, will at the same sitting, and with no greater apparent resistance, permit the introduction of a No. 28 or No. 30 steel sound. This quality, which gives these latter instruments such value in the treatment by gradual dilatation, necessarily lessens their delicacy as explorers, and accounts for their frequent failure to detect strictures of large calibre.

§ On Stricture of the Male Urethra, its Radical Cure. By Fessenden N. Otis, M.D. Pamphlet, pp. 36. New York, 1875.

floor of the membranous urethra, each measuring about two lines in diameter. A microscopical examination of the constricting band was made by Dr. Shakespeare, Pathologist to the Philadelphia Hospital, with the following result:

"The section which I made of the stricture submitted for microscopic examination by Dr. White included the mucous and submucous tissue. Longitudinal sections were made after the specimen had been hardened in alcohol. These, after staining in carmine and mounting in damar, exhibited, under the microscope, a great increase of the fibrous portions of the submucous tissue. Among the fibrous bundles were numerous typical, curly, elastic fibres. It was also noticeable that the walls of the capillary vessels running towards the mucous surface were very thick and fibrous (sclerosed). The inflammatory processes were in the last stages, as was evidenced by the sparseness of cellular elements scattered throughout the fibrous portion."

This case is, in my opinion, one of a large class formerly often overlooked, and still neglected or misunderstood by those practitioners who adhere to the old methods of examination. Its further progress, had it not been interrupted by acute disease and death, can be easily stated. In consequence of the imperfect emptying of the urinary tract, cystitis would sooner or later have resulted, and would probably have been regarded as the primary disease if the urethral coarctation had remained unrecognized. Pyelitis, or infiltration of urine, or both, would have followed, and would possibly have caused death by uræmic or pyæmic poisoning. It is of course admitted that the case is in many ways an unusual one. With the same amount of existing disease the subjective symptoms would ordinarily be much more marked, or the contraction giving rise to it would be of smaller calibre: actual ulceration is rare in these conditions, and an involvement of the urinary tract posterior to the bladder was hardly to be expected where there was so little obstacle to the flow of urine. The facts remain, however, that these are simply exaggerations of the pathological processes which beyond a doubt result from any infringement, however slight, upon the normal calibre of the urethra, and that an accurate diagnosis could not have been made and consequently rational treatment could not have been applied without the use of the bulbous or exploratory bougie; and this is beyond anything else the practical point to be derived from a study of this case.

While my experience in this and many similar cases, and my respect for the opinions of those whom I have quoted, lead me to the belief that the *bougie à boule* is an indispensable instrument to the surgeon who deals with urethral diseases, I recognize distinctly in connection with its use several sources of possible error. My attention having been called to the subject by the large number of deep-seated strictures which were discovered by a professional friend while pursuing an investigation into the results of masturbation, and my own experience among onanists having led me to a contrary conclusion, I began a series of observations upon healthy urethræ. Since then I have examined, in the out-patient department of the University and in the wards of the Philadelphia Hospital, a large number of individuals, probably a hundred, who were not conscious of any genito-urinary trouble whatever. I have not failed in a single instance to obtain, at a point varying from five and a half to seven and a half inches from the meatus, the characteristic arrest of the instrument and the subsequent jolt or jump which are so familiar to those who have used it in cases of stricture, the sensation being that of pulling a knotted rope through a relatively small aperture. It was evident at once that this condition could not be an abnormal one; and its explanation was sought, and I believe found, in the anatomy of the curved portion of the urethra. Any extended consideration of this would be inconsistent with the limits and purpose of this paper; but there are one or two points which seem to me worthy of special mention. Directly beneath the symphysis pubis the urethra perforates the posterior or visceral layer of the deep perineal fascia. This layer is properly a portion of the pelvic fascia. It fills in the sub-pubic arch from behind and passes along the sides of the membranous portion of the urethra to the prostate. A little in advance of this point is the anterior or integumental layer of the same fascia, continued round the under surface of the urethra, becoming lost upon the bulb and filling in the sub-pubic arch from in front. Between these two layers, which are often described together as the triangular ligament, are found various vascular structures, important muscles, Cowper's glands, and the membranous urethra. It is said that the anterior layer exerts the larger share in stopping

the progress of an instrument inwards, owing to the fact that just in front of it is the freely movable and dilatable bulbous portion of the urethra, permitting considerable motion in the point of the sound, which is suddenly arrested at the commencement of the membranous urethra by this firm fibrous anterior layer.* This is probably true; but it may be capable of demonstration that the posterior layer, for analogous reasons, offers a similar opposition to the free withdrawal of a bulbous bougie. The prostatic urethra being at once more movable and more dilatable than the membranous portion, the bulb slips smoothly along it until the point is reached at which this layer of fascia closely embraces the posterior part of the membranous urethra and the outer surface of the prostate. Here, for obvious reasons, it is arrested, and it is at this moment that the deceptive sensation which may be considered indicative of the existence of organic stricture is communicated to the hand.

A series of observations and dissections upon the cadaver has confirmed me in this view, which was originally purely theoretical, and has moreover eliminated the possibility of the resistance being due to a spasm of the compressor urethræ muscle which surrounds the canal at this point, arrest of the instrument occurring just as invariably after death as before.

Having in a number of cases carefully brought the bulb closely up to the point of resistance, an assistant has held it in position while I exposed it by a dissection of the deep urethra. I have always found the shoulder of the bulb in the exact locality of the deep layer of fascia,—the edge of which could often be felt tense and cord-like over the upper wall of the urethra. A division on either side of its attachment to the ramus of the ischium or pubes beneath the crura penis would then cause an immediate disappearance of the resistance, and the bulb could be drawn outwards smoothly and uninterruptedly. If the handle of the instrument were depressed during its withdrawal, the edge of the prostate became a cause of obstruction; and it may act thus to a greater or less degree in all cases.

It is not claimed that these observations are new, and it is of course well known that the region of the perineal fascia has long been considered one of the normal constrictions of the canal, and that frequent allusion has been made to this fascia as an obstacle to the passage of urethral instruments; but the subject does not seem to have been definitely discussed in its relation to bulbous bougies, and very distinguished surgeons have been apparently forgetful of it.†

In an able and important paper on "Sexual Debility and Impotence," published in the *Medical and Surgical Reporter* for May 5, 1877, Dr. S. W. Gross remarks that the majority of the cases of reduced sexual power which have come under his observation have been due to subacute inflammation and morbid sensibility of the curved portion of the urethra, and "were always associated with deep-seated strictures, usually of large calibre." He gives the results of his examination of nineteen such cases, attributing four of them to gonorrhœa, the rest to masturbation. He says, "It is interesting to note that the strictures, whether they were the effect

* Sir Henry Thompson, "Stricture of the Urethra," p. 58. Dr. Otis, whose opinions on genito-urinary disease are always worthy of careful consideration, has said in a recent article (*N. Y. Med. Journ.*, April, 1876) that "perfect security against mistaking a normal narrowing for stricture may always be had by examining from before backward. If the canal anterior to the contraction is of distinctly larger calibre, this localized contraction must be accepted as a stricture." I suppose he refers to the ante-bulbous urethra; though he does not distinctly say so. The anterior layer of the deep perineal fascia certainly offers in many cases a decided resistance to the introduction of a bulb, though it is not often so plainly perceptible during the withdrawal of the instrument. If Dr. Otis's rule were to be strictly applied, this point might often be wrongfully considered to be the seat of abnormal narrowing.

† Mr. B. Wills Richardson, in the *Dublin Journal of Medical Science* for November, 1873, remarks that he believes the bulbous bougie to be a deceptive urethral explorer, but says that for ordinary exploration it is preferable to a metallic sound. He fails to give any anatomical reasons for his belief in the fallacy of the bulbs.

Dr. Robert F. Weir, in an excellent article on "The Normal Urethra and its Constrictions" (*N. Y. Med. Journ.*, April, 1876), asserts that "our heretofore relied-upon methods of exploration are not sufficiently trustworthy for us to distinguish between normal and abnormal narrowings of the urethra, certainly from No. 29 upward," making the remark especially as a contradiction to the statement of Dr. Otis that "complete freedom from stricture can only be demonstrated by the easy passage of a bulbous sound of a size fully equal to the normal calibre of the urethra." He, however, alludes to occasional apparent constrictions or duplicatures of mucous membrane existing in the spongy portion of the urethra, and not to any deeper-seated and invariable trouble. Dr. H. B. Sands, likewise in the same journal, says that the deceptive sensation may arise from "a deviation of the sound from the axis of the canal, a spasmodic contraction of the muscular fibres which surround the urethra, or a puckering of its mucous membrane before the instrument." Both these gentlemen have confirmed by casts of the urethra the variations in size and dilatability of its different portions which Sir Everard Home, Ducamp, Reybard, and others had long ago shown to exist. The constrictions which Dr. Weir detected with the *bougies à boule* in the cadaver, and the existence of which subsequent post-mortem examination failed to confirm, may have been due to differences of elasticity in the spongy urethra. Civiale long ago observed that "from the fossa navicularis to the arch of the pubis the dilatability of the urethra does not sensibly vary, but that in the middle of this free portion there is a diminution of elasticity" (Traité pratique sur les Maladies des Organes Génito-Urinaires, 2d ed., Paris, 1850, p. 36). It was exactly at this locality—from two to three and a half inches from the meatus—that all of Dr. Weir's constrictions were found; and, as elasticity and dilatability are not interchangeable terms, this may explain not only the resistance to the passage of bougies, but also the fact that no constrictions were found in the casts at these points.

of onanism or of gonorrhœa, were usually single, deep-seated, and of large calibre;" and adds that he is "forced to adopt the view that urethral stricture, as well as hyperæsthesia, is an essential lesion of masturbation." He believes his measurements to be of practical importance, since they indicate that "the lesion is generally to be found at the sub-pubic curvature and its vicinity," and says that for its detection, instead of the ordinary instrument, he "would earnestly recommend the soft, exploratory, bulbous bougie."

The relation of my observations to those of Dr. Gross is evident, and it seems probable that in many of his cases he has mistaken the normal constriction to which allusion has been made, for an abnormal narrowing or stricture. Fortunately, this mistake, if it be one, does not seriously affect the practical value of his paper as regards the treatment recommended for the relief of these conditions. He says, "Of topical measures none has afforded me such good results as the introduction of the conical steel bougie, at first every forty-eight hours, and afterwards every day."

There can be no doubt of the benefit of this plan of treatment in such cases; but it is possible that its usefulness is due, not to the dilatation of an abnormal contraction, but to the sedative and resolvent effect usually following the judicious introduction of full-sized urethral instruments.* When, however, he adds that dilatation alone often fails, and that then "to effect a permanent cure an operation will be required," and advises internal urethrotomy, I dissent because in the majority of instances his incision would necessarily be made in that portion of the urethra which most seriously resents interference, and would be through the normal structure of the parts, and not through a constricting band of cicatricial material.

Moreover, I cannot accept his conclusion that "urethral stricture is an essential lesion of masturbation." A year or two ago, while acting as medical officer to the Eastern Penitentiary, a prison containing about a thousand convicts and conducted on the principle of separate confinement, I began some observations on the urethræ of those prisoners who were known to be persistent masturbators. I used both the steel sounds and the bulbous bougies in these cases, but abandoned the investigation on account of the impossibility of eliminating other causes of disease, —particularly gonorrhœa. I am sure, however, that, exclusive of those which I believed to be normal, I observed no large proportion of coarctations; and I do not think masturbation a sufficiently active or efficient cause for their frequent production. If it were such a cause, the effects would surely in a certain proportion of cases be more serious and more noticeable; if it were capable in nearly every case of producing one stricture of large calibre, it would sometimes be followed by several strictures of smaller calibre. The institution alluded to is one which affords exceptional advantages for the study and observation of onanism and its effects, and the subject was one in which I was specially interested; but I do not remember, during an experience of three years and a half, to have ever seen in a confirmed masturbator retention or incontinence of urine, frequent or difficult micturition, or any of the more marked symptoms which would usually accompany stricture of the urethra. Neither have I learned that those physicians who have charge of the insane, and who see large numbers of onanists, have ever made similar observations; although I freely admit the great probability of many such troubles having escaped notice.

The importance of Dr. Gross's paper, however, as establishing from actual experience the value of steel sounds as curative agents in cases of sexual debility and impotence, and as calling attention to the relation between these conditions and masturbation and organic stricture, cannot well be over-estimated, even though it be only in exceptional cases that this relation is as definite as is claimed by the distinguished writer.

One of the great advantages claimed for exploratory bougies, and one which to a certain extent properly belongs to them, is the power which they confer upon the patient himself of recognizing, equally with the surgeon, any abnormal contraction of the urethra; but I am sure, from repeated experiments on myself and on patients, that it is often impossible to distinguish, so far as the sense of resistance is concerned, between this normal obstacle and a deep-seated stricture; and the abuses which may arise from a knowledge of this fact by charlatans are almost as much to be dreaded as the errors of those who are unfamiliar with it.† It may be claimed that extended experience confers upon the operator the ability to distinguish by the tactile sense the difference between a normal and an abnormal contraction; but I do not think this is true. The problem is largely mechanical: the conditions are in every way analogous, and the resulting sensations both of the surgeon and the patient are almost precisely similar, varying more with the calibre of the contraction than with its cause. Of course, if the truth of these assertions be admitted, the accurate diagnosis of stric-

* Van Buren and Keyes, p. 151, *New York Medical Journal*, No 133, p. 388.

† "In the hands of designing persons these instruments may be turned to most unworthy purposes. For men outside the ranks of our profession, or holding a questionable position on its outskirts, they are the very thing."—Sir Henry Thompson.

tures in the sub-pubic region becomes, in many cases, exceedingly difficult. In practice, when the patient is possessed of a reasonable amount of intelligence, I place great weight upon the amount of pain which is excited by the introduction of the bougie. If at this point the patient simply complains of the peculiar sensations which always attend the passage of an instrument through the deep urethra, and not of severe pain, I usually dismiss the idea of stricture in this region. If, however, actual and severe pain is caused by the presence of a bougie, and a careful examination fails to reveal any coarctation in the anterior part of the canal, I consider it indicative of some abnormal condition—not necessarily stricture—of the deep urethra, and proceed to treat it by the introduction of full-sized sounds.*

This method is, of course, inexact, as the results vary with the susceptibility to pain of the individual; but I have usually found it sufficiently reliable.

Another frequent source of error is a spasmodic contraction of the urethral muscles around the bulb of the instrument, conveying to the hand a sensation which is very deceptive and is often almost undistinguishable from that imparted by a true stricture. This tendency to spasm will frequently be found associated with a contracted meatus, or with a stricture in the anterior portion of the canal.

It generally disappears during profound anæsthesia, and etherization may consequently serve as a means of clearing up doubtful cases.

* I have found that in passing bulbous bougies in the cadaver I could often recognize the precise instant of their entering the bladder. On withdrawing the bougie it might be found impossible to tell by the touch when the bulb left the bladder, but on inserting it again it could be distinctly felt to hop over some obstacle at the internal meatus. Now, the length of the curved portion of the urethra in adults is but slightly variable, the differences in the length of the whole canal depending chiefly upon corresponding differences in the pendulous portion of the penis: consequently in the majority of cases we have an almost fixed distance between the mouth of the bladder and the triangular ligament. If, therefore, we could in the living as in the dead recognize definitely the moment at which the bulb entered the bladder, we could with equal definiteness fix the point at which we ought to find a normal contraction, and would therefore have a valuable aid to the detection of strictures in this region. Practically, however, I find that, although in some instances by great delicacy of manipulation it is possible to tell when the bulb passes into the bladder, in the majority of cases it is impossible to do so; occasionally, too, the sensations of the patient will be of value in the determination of this point, but they cannot be depended upon. I am making a series of measurements with this idea in mind, but have not yet reached a number which will justify much generalization, and feel doubtful as to the possibility of ever practically applying the facts elicited. The relation of the circumference of the internal meatus to that of the prostatic urethra, as shown by distending injections (Dr. H. B. Sands, *N. Y. Medical Journal*, March, 1876), would seem to be variable; of course when the meatus is the larger, no marked resistance would be offered by it.

The distinction between a spasmodic and an organic stricture may often be made from the quivering irregular manner in which the instrument is held when its stoppage is due to spasm, and still oftener by the fact that the obstruction is not at a definite point, but will be found at different portions of the urethra in different examinations. These qualities, however, do not invariably obtain in spasmodic stricture. The following case will serve to illustrate at once the deceptive symptoms which may accompany this form of stricture, its dependence upon true stricture situated at or near the meatus, and the very serious consequences of this latter form of contraction, even when of large calibre:

W. S., a gentleman æt. 27, strong, robust, weight one hundred and seventy pounds, complained to me of deep-seated lumbar pains, which he believed to be due to Bright's disease. A careful examination of his urine showed his kidneys to be in an entirely healthy condition. As there was a history of two or three antecedent attacks of gonorrhœa, I persuaded him to submit to a urethral examination. A dense cartilaginous stricture was found, situated almost directly at the meatus, and admitting a No. 16 bulbous bougie. This instrument was passed into the bladder and slowly withdrawn, two points of contraction being passed, one at three and a half, the other at five and a half inches from the meatus; the procedure and measurement were repeated with the same bougie, and then with a No. 18, with identical results. A No. 21 steel sound was then passed through the first stricture, but, as it gave some pain at this point, was withdrawn. A No. 19 passed by its own weight and without any resistance directly into the bladder. The instant, however, that the point of the instrument had traversed the prostatic urethra, the patient became violently convulsed, the head was thrown back and held there rigidly, the eyes were rolled upwards so that only the whites were discernible. General convulsive movements of the most violent character occurred. There was slight frothing at the mouth, with marked opisthotonos, great lowering of temperature, cold perspiration, and a pulse of 50. After persisting for, perhaps, a minute or a minute and a half, the convulsive element disappeared, and the patient recovered consciousness, but in a state of profound weakness and depression. Half an hour later, after the administration of two ounces of brandy, the pulse was only 55, and the temperature 96.2°. Reaction followed very slowly, but in an hour or two the patient was able to walk home. There was no history of epilepsy in the family nor in the patient himself. Two

days later I freely divided the stricture at the meatus with a probe-pointed bistoury, so that a No. 30 steel sound could be inserted without difficulty as far as the commencement of its shaft,—about three inches. This was done every day for a week or more, when a No. 24 bulbous was cautiously passed into the bladder, and was followed by a steel instrument of the same size, causing but little pain, and without producing any return of the alarming symptoms which have been mentioned. In two or three sittings this was increased to No. 28, which is nearly the normal calibre of the urethra (circumference of flaccid penis, a little less than three inches), and this instrument now slips easily and almost painlessly into the bladder. A bulbous sound No. 26 fails to detect the slightest contraction, with the exception of the one at the triangular ligament, and which my experience leads me to believe is rarely, if ever, absent. The pains which first caused the patient to seek professional advice have entirely disappeared. The case is still under treatment. I expect to increase the size of the bougie to No. 30, and to advise its occasional use for some time.

This case, like the other, cannot be considered a typical one, the ordinary symptoms being greatly exaggerated and intensified in both. But for that very reason they serve to illustrate with greater clearness the principles involved in the use of these instruments.

The production of convulsions by the gentle introduction of a bougie is itself an occurrence of such extreme rarity as to deserve mention, and, indeed, I have not been able to find recorded a precisely similar case. Syncopal attacks are comparatively common, and are sufficiently alarming. Nausea, painful and frequent micturition, urethral fever, cystitis, swelled testicle, or bubo are concomitants or sequelæ of catheterism with which every surgeon is familiar, and with the possibility of which he usually acquaints his patient; but general convulsions with such profound depression of all the vital forces is an accident which has hardly been considered as within the range of possibilities, and should serve as a salutary warning against the careless or unnecessary use of urethral instruments.

A source of error in the use of bulbous bougies, to which I shall merely allude as altogether inexcusable, is a malposition of the penis at the time the exploration is made. Any twisting or doubling of the organ upon its long axis will of course give rise to a sense of resistance during the withdrawal of the bougie; but, if the penis is gently extended, and is held with the dorsum facing the abdominal wall and parallel with it, no such mistake can be made; and, so far as the pendulous portion of the urethra is concerned, the instrument may be considered to be of great use.

The object of this paper will have been attained if it assists in demonstrating:

1st. The existence and pathological importance of strictures of extreme calibre.

2d. The absolute necessity for the intelligent use of bulbous bougies in the diagnosis of such strictures.

3d. The resistance offered to the withdrawal of bulbous bougies in normal urethræ by a constriction at or near the deep layer of perineal fascia.

4th. The possible occurrence of a spasmodic constriction almost undistinguishable from an organic stricture.

5th. The occasional dependence of such spasms upon coarctations of large calibre situated in the anterior portion of the canal.

222 South Sixteenth Street.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. R. J. LEVIS.

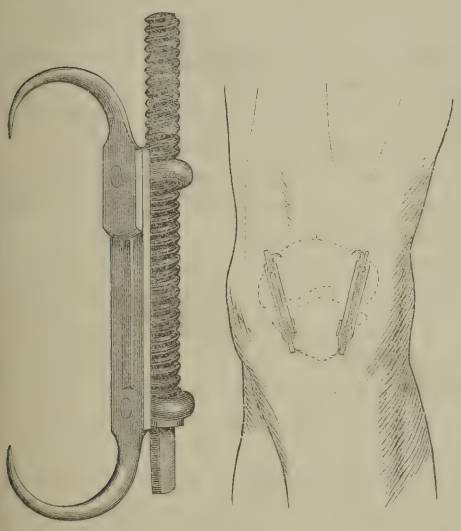
Reported by John B. Roberts, M.D.

FRACTURE OF THE PATELLA TREATED WITH A MODIFICATION OF MALGAIGNE'S HOOKS.

MARY J. was admitted with transverse fracture of the left patella, the fragments of which were separated by a distance of three-quarters of an inch. After elevation and anodyne lotions had been employed for three days, she was etherized, and Dr. Levis's modification of Malgaigne's hooks applied to bring the pieces of bone into accurate approximation. The modification consists simply in having two pairs of single hooks instead of the pair of double hooks usually seen. By this change the bone is more firmly and accurately held, because on account of the irregular surface of the patella it is difficult to make the double hooks sit accurately: they are like a four-legged stool on an uneven floor. After the hooks had been adjusted and firmly screwed together, carbolized oil was applied and the leg placed on an inclined plane.

The hooks gave accurate apposition of the fragments, and were kept in position a

little over five weeks; after their removal the same dressing was continued to the small ulcerated points, and the limb kept extended. The two patellæ were accurately measured, and found to be of the same length. She was soon allowed to walk with a posterior straight splint, and passive motion was instituted when this was discarded.



At the present time, which is four months since the receipt of injury, the leg can be flexed to a right angle; and the patient, though she still walks somewhat lame, is rapidly gaining perfect control of the limb. With the finger there can be felt a slight ridge at the point of fracture, but the two patellæ seem to be of the same length.

TRANSLATIONS.

Therapeutic Uses of Thymol (*Giornale di Medicina Militare*, Rome, December, 1876; from *Virchow's Archiv*).—In an article on thymol as an antiseptic and anti-fermentative, Lewin ascribes the following properties to the article in question. In a solution of one-tenth per cent., thymol arrests the fermentation of sugar, and in relatively small quantities retards the putrefaction of organic substances. If a solution of thymol is applied to the skin of a frog, there is induced a paralysis of the peripheral extremities of the sensory nerves of the skin, which anæsthesia is followed by an affection of the subjacent parts or muscles. If the agent be injected hypodermically, the same local symptoms occur without any involvement of the central nerves. If applied directly to the heart, this organ acts like the other muscles and remains paralyzed. In warm-blooded animals, however, whatever the dose, it does not produce when applied to the skin the same effect as in the frog: 120 grains of a one-tenth per cent. solution were administered to a rabbit without relative symptoms manifesting themselves. The appetite of the animal remained normal, and diuresis was produced.

In the medication of solutions, thymol acts as no other of the antiseptics hitherto thus employed. It produces in a short time cessation of vomiting in cases of abnormal fermentation in the stomach. In diphtheria and similar diseases there is reason to believe that thymol will become of great utility; and on account of its astringent action it can be employed to counteract hypersecretion of mucus. Internally, Lewin used a solution of 0.8 to 1 part in 1000 parts of water; externally the same, or 2 to 4 grains, with alcohol and water to make 1000 grains. J. B. R.

The Use of India-Rubber Cloth in Skin Diseases (*Giornale di Medicina Militare*, Rome, December, 1876).—This dressing fell into discredit because it was employed in moist eczemas and eczema rubrum, where the exudation increased and great exfoliation resulted. It is most advantageous in those processes accompanied by dry skin, in which evaporation is diminished by the use of the cloth; and so also in diseases presenting an excessive alteration of the epidermis, as psoriasis, the last stages of eczema, etc. Besides, it acts as an adjunct to other curative means, as, for example, in using tar inunctions. The patient uses the ointment at night and can in the morning after washing apply the gum cloth; by which means the perspiration keeps the skin moist under the dressing and the patient can attend to his customary vocation. In some forms of psoriasis the cloth alone is sufficient, as also in some diseases resulting from deficient secretion of the sebaceous glands. In cases of xeroderma a form of chronic urticaria passing into prurigo is apt to result from the treatment; so that though conquering the xeroderma we are in danger of producing an intractable itching.

J. B. R.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, MAY 26, 1877.

EDITORIAL.

MEDICAL EDUCATION AT THE UNIVERSITY OF PENNSYLVANIA.

DURING the last twenty years there has been an enormous amount of writing concerning medical education in these United States: nevertheless the standard of graduation south of New England has been steadily lowered, and, to our thinking, the courses of lectures rendered more unsatisfactory. Much new matter has indeed been added to the curricula, the bait of clinical instruction has been alluringly spread; but the effect has been evil, because the attempt has been simply to pour into vessels already overfull. Formerly students went from their two winter courses with a well-laid foundation of principles upon which to build. At present the whole of the vastly enlarged science and art of medicine is hurriedly planed out in five months, and with this green unseasoned lumber the student throws together a Centennial shanty-palace,—no part of it well and permanently built, none finished and perfected.

Feeling deeply the evil, the Board of Trustees of the University of Pennsylvania have, after a discussion lasting over several years, resolved to reorganize at once the Medical Department. Although the details of the scheme have not yet been worked out, sufficient has been done to indicate the headlands of the plan. As is well known, the regulation number of professors in medical colleges is seven, and the period of study two sessions of five months each. The first alteration made by the University authorities consisted in increasing the number of professors from seven to eleven. This was carried out last year. These chairs and their occupants are as follows:

Clinical Surgery, vacant.
Clinical Medicine, Dr. Wm. Pepper.
Clinical Obstetrics and Gynæcology, Dr. Wm. Goodell.
Pathology, Dr. James Tyson.

The fundamental changes shadowed forth in the formation of these professorships are now consummated in the *compulsory attendance of the student upon three courses of lectures, and the arrangement of the lectures upon a graded plan.*

This much having been decided upon, the question at once suggested itself, How long shall each course of lectures be? Undoubtedly it would be theoretically much better if the session lasted eight instead of five months; and the first impulse was to lengthen the course; but, as we think, wiser counsels have prevailed, and the five months' winter term is to be preserved; we say wiser counsels, because it is perfectly possible to go too fast and to endanger permanence by a too rapid building. The step from the requirement of two to that of three winters is a really enormous one; and it would be very foolish to proceed further before it is seen whether the profession will support this advance. Further, a very elaborate and extensive course of spring lectures both upon scientific and practical subjects has been established and made free to the students of the winter course, so that those who desire it can most profitably spend their whole year in the city.

As already intimated, the details of the plan have not been worked out; but we think we are justified in stating some things that will not be, and some things that will be, done.

In the first place, the plan of instruction followed out at Harvard will not be copied. Much as we respect the gentlemen who had the hardihood and the wisdom to act as the pioneers in medical education, and earnestly as we have supported them, we

have always thought that the method adopted at Harvard smacks too much of the school-house.

Professors in medical colleges are, or ought to be, not pedagogues, but the foremost men of their age and country; the students are, or ought to be, not boys, but earnest men, steadfastly set upon fitting themselves for the most responsible positions on earth. It is a sheer waste of talent and time, a misuse of valuable force, for such professors to hear lessons; and it is almost an insult to require the recitation at intervals of so many pages of a book from such students. Let the great teacher pour forth his own thoughts and knowledge, and students gather up his wisdom, in the amphitheatre. Could anything be more disheartening than to see a John Hunter turned schoolmaster?

It may be answered that the medical college might have instructors to hear the recitations, and leave the professor to his lecture-room and laboratory. This certainly would be better than prostituting the professorial office; but the ordinary plan seems to us far better. What solid gain is obtained by having the instructor officially connected with the school we do not see. On the other hand, if the place is left open, and free trade, so to speak, allowed, the chance to prove and develop his teaching powers is afforded to every man. The "quiz room" becomes the nursery of professors. More than this, the ever-present competition must be an ever-present stimulus. The official instructor may fail to come up to his best, and yet retain sufficient popularity to prevent his dismissal or even the loss of his chances of rising in the school. In a quiz association composed of several men and harassed by a rival establishment, each member becomes a watchman over every other member, and the franchises of the class a barometer so sensitive and so public in its markings that it behooves every man to keep his own popularity as high as possible.

The base of every college is its young men, and its success depends at least in a considerable measure upon the hearty support and the numbers and personal strength of these men. To attempt to subvert the quizzes would, we think, be suicidal; and we are sure such a move is not contemplated.

The chief additions which will be made to the method now in use are the re-arrangement of lecturing, and the addition of laboratory work and of practical clinical instruction.

In regard to laboratory work, the University is supplied with an abundance of already partially furnished rooms; and it will be very easy to prepare for and accommodate as large a class as may present itself.

In regard to clinical advantages, there is scarcely a school in the United States that has as large a mass of clinical material at its very doors. There is the Hospital of the University itself, at which during the last year there were treated about six thousand patients. Across the street is the Philadelphia Hospital, with about one thousand beds, besides its lying-in and children's departments. During the winter seasons this hospital is crowded with patients, and a majority of its medical staff are University teachers. It will be seen that there is abundant opportunity for organizing the most complete and thorough system of bedside instruction; and we have no doubt this will be done. A portion of the second and a large part of the third year of the student will, we believe, be occupied in the hospital wards and the dispensary rooms. It is further proposed to add to the curriculum not only the didactic teaching of gynæcology, but also individual instruction upon actual cases.

The change in the University also touches the relations of the professors to the students, and to the Board of Trustees. The fees are hereafter to be paid to the

Board of Trustees, and salaries given to the professors. At least, such is the present expectation; although we hope finally the German plan of compensating professors partly by salary, partly by receipts from students, will be adopted.

An earnest effort is being made towards raising an endowment fund for the Medical Department; and the result so far has been so encouraging that when it was supplemented by the younger professors offering a personal sacrifice in favor of the new plan, the University authorities thought the time had come for the change. But it is impossible for men, however enthusiastic, to permanently work much below the market rate. The University salaries must before many years be put upon a uniform liberal scale, if the character of the Faculty is to be maintained. Much will no doubt be done by endowment, but fees from students must for a long time remain the chief source of income. The success or failure of the experiment rests, therefore, with the profession. If failure comes now, a quarter of a century must elapse before another trial; for the present experiment is made in the oldest and most famous school of the country, and under the most favorable auspices.

The alumni of the University will of course sustain their alma mater to their utmost, but for success more is wanted. Let the alumni of other schools for a time direct their students to the University and to Harvard. The success of these schools secured, the chief medical colleges of the country will not be slow to follow the lead.

ACCORDING to the *Buffalo Medical and Surgical Journal*, there are in that city to every doctor four hundred and twenty persons capable of paying, and the average medical "book income" from practice is four hundred and twenty dollars, one-half of which is usually not collected. The average man, woman, or child, to our thinking, pays more than a dollar a year for medical services. But, allowing this, there seem to be good grounds for the medical profession in Buffalo doing as the editor says: "Buffalo physicians are contented to strive to lay up treasure 'where moth and rust do not corrupt,' and have long since abandoned the pursuit of earthly treasure." There are a good many doctors in this city who, less philosophic, seem not to lay up treasure anywhere.

CORRESPONDENCE.

NEW YORK, May 8, 1877.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR:—Dr. E. C. Seguin has lately read an interesting paper before the Medical Journal Association, on "*The Use and Abuse of the Bromides*." It was divided into two parts,—the first being devoted to a discussion of the characteristics of bromism, and the second to an exposition of his own methods of giving the bromides.

After a short historical sketch of the bromide of potassium, and a tribute to the labors of Locock and Brown-Séquard in connection with it, he went on to show how very extensive had been its employment of late years in all manner of affections. At first its use was largely empirical, but at the present day he thought this was becoming less and less the case. In regard to its *modus operandi*, there were two schools of opinion, one holding that its action was primarily on the vascular system, causing contraction of arterioles, and the other, that it acted directly upon nerve-elements. Personally he held to the latter view, which he thought was the only one that could satisfactorily explain all the phenomena accompanying its exhibition; but, however that might be, all observers were united in the conclusion that it had the general effect of lessening the irritability of nerve-centres, and especially of motor tracts.

In treating of the abuse of the bromides, Dr. Seguin made three subdivisions of the subject. First, he gave a detailed description of bromism in its milder and severer forms; secondly, he spoke of the latter as a complication in diagnosis; and, thirdly, he mentioned the medico-legal aspect of the subject.

In the milder cases of bromism some of the prominent symptoms mentioned were, the general debility, difficulty of utterance, amounting to a species of aphasia, acne, and the bromic breath. In a large class of nervous ailments not very clearly defined, some physicians, as well as druggists, were in the habit of recommending the patients to "take

a little bromide," and the practice thus instituted almost invariably resulted in a deterioration of the system. No physician, he thought, had a right to order medicines, and especially those of an injurious nature, in cases where they were not really called for. In the severer form of bromism he was inclined to believe that a central lesion might result. Among the symptoms mentioned were, paresis, a staggering gait, more or less incoherence of speech, acne, and sometimes rupia-like ulcers, diminished menses, and loss of virile power. The effects might be so marked as to amount to actual dementia. In concluding his description, Dr. Seguin pointed out the striking similarity between bromism and general paralysis of the insane.

Happily this severe form was exceedingly rare, except in epileptics who took at least thirty or forty grains of a bromide regularly every day.

In speaking of bromism as a complication in diagnosis, he mentioned two cases: one of Voisin, in which every authority but himself believed the patient to have general paralysis of the insane, but which made a rapid recovery as soon as the bromides were discontinued; and one of his own (seen in consultation), in which both the attending physician and a consulting oculist believed there was a central tumor of the brain. Dr. Seguin was of the opinion that only the *dura mater* was affected; and the result showed that the whole trouble was due to bromism.

He was not aware that the question of bromism had ever come up in medico-legal cases, but it was one liable to arise at any time. Among the points to be considered were—(1.) The responsibility of the physician in giving a medicine which has such a deleterious effect upon the patient both physically and mentally. For instance, a case had occurred in which an individual had fallen asleep in a railway-station while under the influence of bromide of potassium, and been robbed of four hundred dollars. (2.) The responsibility of the patient for criminal acts, such as taking articles and forgetting to pay for them, improper demonstrations through mistaken identity, etc. (3.) The responsibility of the patient in business transactions, making a will, etc. (4.) Death from bromism. There is a case on record in which excessive doses of the bromides previously ordered by a physician were kept up by the nurse, who paid no attention to the failing condition of the patient, until death finally resulted.

In this connection the question arises whether this method might not be employed by the criminally inclined in cases where it would be desirable for any reason to get rid of some individual.

Passing now to the second branch of his subject, Dr. Seguin spoke of his methods of using the bromides, especially in epilepsy. Here he used two solutions, the first formula being as follows:—℞ Potass. bromidi, ℥j; ammon. bromidi, ℥ss; aquæ, f℥vij. M.

The second is, ℞ Sodii bromidi, ℥j; ammon. bromidi, ℥ss; aquæ, f℥vii. M.

He has found it better to give the bromides thus in simple solution than in the form of elixirs or with syrups, and his plan is to give one teaspoonful of either of the above mixtures (they are both equally effective) in the morning and at noon, and two teaspoonfuls at night, in accordance with the practice of Brown-Séquard. The condition of the patient should be carefully studied from time to time, and the sensibility of the fauces watched, in order to keep up a mild bromism continuously for many months. Children bear much larger doses proportionally than adults, and from twenty to forty grains of the bromides may be given to mere infants with impunity. It is important that the remedy should be given largely diluted and upon an empty stomach. In epilepsy we are justified in producing bromism, but this is the only affection in which this is the case, unless, perhaps, in the opium habit, in which Dr. George M. Schweig, of this city, has found the bromides in large doses very efficient. We should never discontinue its use until the word "cure" can be pronounced. As Dr. Brown-Séquard says, the dose may be diminished during attacks of intercurrent affections, etc., but it ought never to be remitted. If this is done, all the good effects produced by a prolonged use of the remedy may be lost. The question then arises, How long should the bromides be kept up in epilepsy? According to Brown-Séquard and Voisin, for about three years; and this is to be regarded as the minimum period, the time occupied varying greatly in different cases. There are some patients who bear the remedy badly and are apparently but little benefited by it; but even in these it should be persevered in, as it may prevent the patient from dying in a fit. The bromides constitute by far the best means of treatment; but other agents are required in almost all cases, and especially to counteract any unpleasant effects that may arise from their use.

Thus, arsenic, quinia, strychnia, cream, cod-liver oil, stimulus, etc., may be employed; but the remedy which has proved in Dr. Seguin's hands of greater service than any as an adjunct to the bromides is belladonna. Dr. Seguin glanced hastily at several other affections besides epilepsy in which he had used the bromides with success, but gave it as his opinion that in many in which they had been employed they not only did no good, but were positively injurious.

At the last meeting of the County Medical Society, April 23, the subject for discussion was, "The Pharmacopœia of the United States: What Modifications are required in Order to meet the present Medical and Pharmaceutical Wants?" Among those who spoke were Drs.

Edward Curtis, Wm. H. Thomson, A. B. Crosby, and H. G. Piffard, and also several representatives of the College of Pharmacy. Most of the medical men, although acknowledging that they had not given the subject sufficient consideration to arrive at any positive conclusions, spoke in favor of the recommendations presented by Dr. Squibb in his late paper; while the latter earnestly opposed them. A resolution presented by Prof. Curtis to the effect that the Society was in favor of taking the Pharmacopœia out of its present hands and putting it in charge of the American Medical Association, and that at the approaching meeting of the latter its delegates should be instructed to vote for any plan by which this can be carried out, was referred to the Comitia Minora for future consideration.

At the last meeting of the Medical Journal Association, May 4, Dr. Eugene Dupuy made some remarks on the "*Therapeutics of Headache.*" He confined himself mainly to the subject of migraine, which he considered due to a nutritive irritation of that part of the encephalon in which the fifth pair of nerves has its origin. The membranes in the vicinity of the pons have either too great or too small a supply of blood, and, as a rule, the condition is one of impending congestion, sometimes bordering on an inflammatory process. For the treatment of the attack of headache he had found those means most successful which act in a reflex manner by causing an irritation of peripheral nerves. Thus, taking strong alcoholic liquors or snuff up into the nostrils was often of service; but the best agent for this purpose which he had found was carbonic acid gas, which should be forced into the nostril on the same side upon which the pain is located, and for whose ready manufacture he had devised an apparatus some years ago. Brown-Séquard had found that this gas controlled even the powerful convulsions occasioned by strychnia, and its inhalation for a minute was usually sufficient to completely dispel an attack of headache. One peculiar effect that it has is to cause a very sharp but momentary occipital pain at the insertion of the muscles, and in some cases it is necessary to keep up the inhalation for a minute and a half before this is produced. It is of no benefit in hysterical headaches, or in those due to the approach of one of the continued fevers. Of almost equal efficiency with the carbonic acid gas he has found the *potion de Rivière*, consisting of citric acid, bicarbonate of potassium, syrup, and water, to which a little bromide of potassium should be added. The third remedy which he suggested was a combination of aconitin, quinia, and tannin.

In the intervals between the attacks the treatment should, of course, vary according to the peculiar circumstances of each case, but in general he has found the following agents of the most service: arsenic, especially in combination with belladonna and ergot, or, better, ergotin, cannabis indica, with valerian or tannin, and aperients, particularly aloes, when it is not contra-indicated. A constitutional vice, such as the rheumatic, the gouty, or the syphilitic, should, of course, receive appropriate treatment when it is found to be present.

Dr. E. C. Seguin spoke of the great efficacy of *paulinia sorbilis* in warding off the attack of headache, especially if given when the patient first wakes in the morning with the premonitory symptoms of one. There were cases, however, in which nothing seemed of any service during the attack except the administration of strong narcotics; and in these he preferred the hypodermic injection of morphia and atropia combined. Where the attacks did not occur very frequently he did not think there was any danger of causing the formation of the opium habit in the patient. During the interval he had found cannabis indica by far the best remedy that he had employed, and he recommended that it should be employed in such a manner as to keep the patient more or less under its constitutional effect for a considerable period. In regard to the pathology of migraine he could not agree with Dr. Dupuy, and presented a number of reasons why he did not accept his views. He was of the opinion that it was a neurosis associated with vaso-motor disturbance, and that there was a well-defined resemblance between it and epilepsy.

Dr. Beard stated that he was inclined to accept the pathology advocated by Dr. Seguin, but that he could not believe that the seeming relation between this affection and epilepsy was anything more than a coincidence. This subject had been discussed in the Neurological Society, and this had been the general opinion expressed by the members at that time. Though the two affections were occasionally found in the same family, this was exceedingly rare. Dr. Beard rather startled some of the gentlemen present by asserting his belief that migraine was a blessing to those who suffer from it. He regarded it as a sort of safety-valve to the system, and recited instances in which its disappearance had been followed by serious organic trouble, especially of the spinal cord. The remedy which he had found the most useful of all in the attack was caffein, and in some instances in which it failed alone, he had employed it successfully in combination with carbonate of ammonia and the elixir of guarana, as suggested to him by Dr. Lincoln. After caffein, he had found the muriate of ammonia in fifteen or twenty grain doses the most useful agent. Electricity, as a rule, had not proved of much service in his hands, though in some particular instances he had used it with benefit in the form of galvanism.

A training-school for nurses is about to be opened in connection with the New York Hospital, and one feature of the course of

preparation will be that all the pupils shall spend one month each in the hospital kitchen and laundry. The new hospital is now in good working order, and a number of serious operations have already been performed in the amphitheatre by the surgical staff. Dr. Markoe, assisted by Dr. George Peters, recently made a very skilful exsection of the superior maxillary there, cutting out the bone completely to the back of the orbit. It is stated that the building has cost not less than $1,200,000. All its appointments are certainly of the most sumptuous and elegant character; but after a careful inspection of the institution one cannot resist the conclusion that an edifice of as really practical efficiency might have been put up for about one-third the price. $1,200,000 is, without doubt, rather an extravagant sum to expend on accommodations for two hundred patients; and it is to be regretted, we think, that a portion of this money at least was not devoted to the permanent endowment of a larger number of free beds.

As the hospital is now constituted, but very few free patients are admitted at all; so that it is probable that the usefulness of the institution would be considerably increased if a larger number of these were taken.

The following statistics of Bellevue Hospital for the year 1876 have been announced:

Number of patients remaining January 1, 1876 . . .		493
Number admitted during the year		5165
Total number treated		5658
Number discharged . . .	4313	
Number of deaths during the year	698	
Total . . .	5011	
Number remaining January 1, 1877		647

The expense of the hospital for the year was $110,568.79.

Out of 47,659 prisoners admitted to the Tombs during the year (of whom 30,926 were males, and 16,733 females) there were only six deaths.

A daughter of Dr. Hammond is about to be married to a gentleman who rejoices in the title of Marquis di Manfredi Lanza di Mercato Bianco. He is said to belong to one of the oldest families in Sicily, and to have served with distinction in the Neapolitan and Austrian armies. Since then, however, his career has been rather a romantic one. His family being, apparently, somewhat impecunious, he came to this country with the expectation of making a fortune, but, having failed to obtain employment as a civil engineer, he changed his views, and accepted a position as waiter at Delmonico's. It was while serving in this capacity at an entertainment at the house of the Rev. Dr. Howard Crosby, Chancellor of the University of New York, in which Delmonico had charge of the supper, that his identity was accidentally discovered. He was recommended by Mrs. Crosby to one of her business friends, and afterwards rose to a responsible position in the firm to which he belonged. Mrs. Crosby furthermore introduced him to Miss Hammond, but probably had little idea that a wedding would finally result from the meeting.

P. Brynberg Porter.

GLEANINGS FROM EXCHANGES.

Closure of Wound in Compound Fracture with Tincture of Benzoin (*The British Medical Journal*, March 24, 1877).—Dr. E. M. Sinclair reports the case of a boy, æt. 12, who had a severe fall, causing a simple fracture of both bones of the right forearm, about the junction of the lower and middle thirds, and a compound fracture of both bones of the left forearm, slightly lower down than the other. The upper extremities of both bones protruded through the wound, and a short piece of each had to be removed before coaptation could be obtained. A moderate degree of extension was secured by an extemporized splint having an "interruption" at the seat of fracture; the wound was then sealed with a piece of lint saturated with compound tincture of benzoin, covered by another piece folded into several layers, and also well saturated with the tincture. There was considerable restlessness for some days, and difficulty, as might be anticipated from the age of the patient, in keeping the *two* arms in proper position.

On the twelfth day there was a slight smell and suspicion of pus having formed under the lint. This was removed, and a large hard "scab" found over the site of the wound, with a very little pus escaping at one side on pressure. Carbolic acid oil was applied for a day or two, and then water-dressing, until the scab came off in pieces; and the wound, with the exception of a few granulations which had sprung up at one small spot, was cicatrized by the twenty-sixth day. There was never any regular secretion of pus, and a firm cicatrix transversely across the arm, about an inch and a half long and from one and a half to three lines in breadth, marked the position of the wound. When the boy was discharged, rotation was very limited in both hands, and a good deal of callus was formed at the seats of fracture, particularly in the left arm.

Three months and a half after discharge, rotation could be performed in both hands to nearly the normal extent. There was no appreciable difference in the length of the two arms on careful measurement. Callus could hardly be felt on either side.

Case of Vesical Calculus the Nucleus of which was a Piece of Necrosed Bone, removed by Lithotomy (*The British Medical Journal*, March 24, 1877).—Sir Henry Thompson communicated to a recent meeting of the Royal Medical and Chirurgical Society the case of a man, æt. 50, who suffered from stone in the bladder. A small orifice to the urethra and sensitive passages indicated lithotomy rather than lithotrity, and the former operation (lateral) was performed on October 30. After several unsuccessful attempts, the stone was grasped by a large forceps, and became crushed in them whilst holding it firmly for extraction. After extracting the large fragments, a large piece was found on a kind of shelf on the upper and back part of the bladder, of which a piece of necrosed bone was the nucleus. There was no vessel to tie; no tube was inserted; and the patient was in a very fair state. After the operation, it was learned that, thirteen years ago, the patient fell from a tree, eighteen or twenty feet, upon his right hip. An abscess formed, and two or three pieces of dead bone came away from the inside of the right thigh just below the adductor longus. He had no trouble till March, 1876, when bladder-symptoms began. The nucleus of necrosed bone weighed eight grains; the crushed fusible calculus (dry) weighed four hundred and thirty grains. The patient was now all but well. The case was another illustration of an unusual cause of calculus in the bladder, from necrosed bone detached from a neighboring portion of the skeleton; the first case having been reported to the Society by Sir Henry Thompson in 1866, who also had had a similar case at University College Hospital in 1872, in a lad fifteen years of age, who made a good recovery.

Ecraseurs (*The Lancet*, April 7, 1877).—The ease, rapidity, and immediate safety with which the tongue can be removed by the galvanic écraseur ought not to lead surgeons to overlook the serious drawbacks to this employment of a most valuable application of electrical science to surgery. These drawbacks are threefold. The great danger in the use of the hot wire arises from the putrefaction which takes place in the slough over the stump of the tongue. This poisons the air passing into the lungs, which then sets up acute and very fatal bronchitis, with, in some cases, a low form of pneumonia. We believe that most of the deaths after this operation are produced in this way. Another danger is septic absorption from the wound, causing cellulitis around the larynx, pharynx, and great vessels of the neck, with œdema glottidis; and when the slough separates, the patient runs a serious risk of secondary hemorrhage, which is not unfrequently fatal. These dangers are so great that many surgeons are returning to the use of the simple wire écraseur, which, although less convenient at the time of operation, is, on the whole, safer. The wire severs the tissues without leaving a thick slough to putrefy and slowly separate, and primary hemorrhage may be surely prevented by proceeding slowly and carefully. Rapidity in action is the danger, for the wire has to *crush*, not *cut*, its way through. If this precaution be taken, the operation should be as bloodless as if the hot wire had been used, and the consequent risks to the patient far less.

NOTES AND QUERIES.

We have received from Dr. V. P. Gibney, of New York, a letter stating that the report of his paper in our New York letter of April 28 is very incorrect. Our New York correspondent is usually very accurate, and this is the first complaint we have had concerning the numerous papers he has analyzed. Without attempting to point out individual errors in the report, we would refer our readers to the full text, which is to be published in the *New York Medical Journal* for June and July.

THE AMERICAN NEUROLOGICAL ASSOCIATION.

The American Neurological Association will hold its third annual meeting in New York on Wednesday, June 6, and on the 7th and 8th.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM MAY 6, 1877, TO MAY 19, 1877, INCLUSIVE.

The following Medical Officers are ordered to represent the Medical Department at the annual meeting of the American Medical Association in Chicago on June 5 next:

Surgeon Joseph R. Smith,
" W. C. Spencer,
" J. J. Woodward,
" J. S. Billings.

S. O. 106, A. G. O., May 18, 1877.

Edwards, L. A., Surgeon.—Leave of absence on Surgeon's certificate of disability further extended six months. S. O. 101, A. G. O., May 10, 1877.

Baily, J. C., Surgeon.—To report to the Commanding General, Military Division of the Pacific, and Department of California, for duty in Department of California. S. O. 106, c. s., A. G. O.

Middleton, J. V. D., Surgeon.—Relieved from duty in Department of Dakota, and ordered to Military Division of the Atlantic. S. O. 106, c. s., A. G. O.

Brooke, John, Assistant-Surgeon.—Assigned to duty at Greenville, S. C. S. O. 92, Department of the South, May 16, 1877.

Gardner, W. H., Assistant-Surgeon.—Assigned to duty at Columbia, S. C. S. O. 92, c. s., Department of the South.

Kinsman, J. H., Assistant-Surgeon.—Relieved from duty in Department of Dakota, and ordered to Department of the Gulf. S. O. 106, c. s., A. G. O.

De Witt, C., Assistant-Surgeon.—Granted leave of absence for one month and twelve days. S. O. 98, A. G. O., May 7, 1877, and on its expiration to report to Commanding General of the Department of the Platte for assignment. S. O. 106, c. s., A. G. O.

King, Wm. H., Assistant-Surgeon.—Assigned to duty at Cheyenne Agency, D. T. S. O. 55, Department of Dakota, May 3, 1877.

Maus, L. M., Assistant-Surgeon.—Relieved from duty in Department of the South, and ordered to Department of Dakota. S. O. 106, c. s., A. G. O.

Andrews, Wm. C. C., Assistant-Surgeon.—Drowned in Young's Bay, near Astoria, Oregon, April 19, 1877.

PHILADELPHIA, JUNE 9, 1877.

ORIGINAL LECTURES.

ASPIRATION IN COMPLICATED CASES OF PLEURAL EFFUSION.

BY WILLIAM PEPPER, M.D.,

Professor of Clinical Medicine in the University of Pennsylvania.

Reported by SAMUEL M. MILLER, M.D.

II.—PNEUMO-PYOTHORAX DUE TO CATARRHAL PNEUMONIA FOLLOWING TYPHOID FEVER.

IN connection with the case which was the subject of the lecture published in the last number of this journal, the following case was exhibited.

Case II.—J. L., 21, admitted to Philadelphia Hospital on October 29, 1876. His previous general health has been good. He was admitted to the medical wards of the hospital in the second week of an attack of typhoid fever of moderate severity. The case presented the characteristic eruption and course of febrile action. There were mental hebetude and slight wandering, but no severe nervous symptoms. There was moderate diarrhœa. The bronchial symptoms were but slightly marked, and physical examination showed merely symptoms of congestion of the posterior parts of the lungs. Towards the end of the second and third weeks the temperature ranged between 100½° and 101½° in the mornings, and 102½° and 103½° in the evenings, which latter was the highest point reached. The patient was treated with tonic doses of quinia, moderate stimulation, nitrate of silver, and opium, fluid diet, frequent spongings, and absolute rest in bed. Towards the close of the third week the symptoms rapidly subsided, and on the morning of November 11, about the twenty-fourth day of the disease, the temperature had fallen to 97⅗°. A slight rise occurred on the following day, but on the morning of November 13 it was again noted at 97°, and in the evening at 99°. The following day, without any distinct chill, there was an abrupt rise of temperature to 104⅘° in the evening; this was not sustained, but for several days ensuing there was a daily variation in temperature of wide range; simultaneously with this there also appeared great acceleration of the pulse and very rapid respiration. The patient complained of a sharp pain on the right side, and, on examination, friction-sound was heard extensively over the right chest. In addition to this there was feeble respiration over the right lung and over the upper lobe of the left lung, with scattered subcrepitant râles. The strength failed rapidly, and the pulse and breathing continued very frequent. The temperature for several days fell to 97° or 98° in the mornings, though in the evenings it rose nearly to 103°. Subsequently, after November 20, the morning temperature no longer fell below the normal until November 23, when it again fell to 97°, with a sudden development of intense dyspnœa. Physical examination showed distention with almost entire immobility of the right chest; marked tympanitic percussion-resonance, absence of the respiratory sounds, occasional metallic tinkling, and succussion-splash. After this sudden development of pneumothorax the patient did not rally. The respirations were very hurried and shallow, and the face cyanosed. All nourishment was refused, and the temperature slowly rose to 101° on November 29, and death followed on November 30.

At the post-mortem examination there were scattered points of catarrhal pneumonia found already passing into the cheesy stage in the upper lobe of the left lung. On the right side there was extensive exudation of lymph on the pleura, the lung being in places coated with layers of recent lymph nearly one inch thick. Posteriorly there was a collection of f℥viij of pus included between the layers of lymph. There were also f℥xxiv of light, straw-colored fluid lying free in this pleural cavity, and in addition to this there was very extensive pneumothorax, the amount of air being great enough to distend widely the pleural sac, and to compress the right lung until its tissue was carnified. It was impossible to detect the point at which the air had escaped into the pleural cavity, the large amount of lymph formed having already covered the orifice, which was undoubtedly minute. A section of this lung showed numerous points of catarrhal pneumonia, some in the stage of cheesy degeneration, others with the formation of small pus-containing cavities. There was still some ulceration of the glands of Peyer near the ileo-cæcal valve, and at several points there was cheesy degeneration of the swollen gland-tissue. The mesenteric glands were also enlarged.

Remarks.—The well-developed character of the symptoms of the original attack leaves no room for doubt that it was one of typhoid fever, and this was confirmed by the post-mortem appearances. There was no exposure of any kind to account for the attack of pleuro-pneumonia, and it must be probably regarded as septic in its nature and connected with the absorption of the resulting cheesy degeneration of the products of the typhoid exudations of the bowels. It was developed in the fourth week; but the changes in the Peyer's patches were somewhat retarded, owing to

the absence of proper elimination. It is very important to recognize the absorption of these morbid products in the later stage of typhoid fever as a source of constitutional infection with the development of miliary tubercles or of septic processes in the lungs. The symptoms which mark the existence of pneumothorax were very prominent. It is interesting to note the occurrence of the abrupt fall of temperature and the development of partial collapse in immediate connection with this accident. The physical signs were so clear as to leave no doubt as to its nature. It was attributed, as in the former case, to perforation of the pulmonary pleura from the softening of a sub-pleural tubercle, or focus of catarrhal pneumonia. There is little doubt that such was the real mode of access of the air to the pleural sac, though at the autopsy inflation of the lung failed to detect the point of perforation. This was, however, easily accounted for by the abundant formation of lymph on the pleural surface. Numerous points of softening immediately beneath the pleura were actually found. The intensity of the pulmonary pleural lesions is remarkable, considering their short duration,—only sixteen days; but careful examinations of the chest during the early days of the attack left no doubt as to the exact date of their development. The explanation of their rapid progress and fatal tendency is doubtless to be found in the state of the system at the close of the long-continued fever, and in the septic origin of the lung-disease. These influences must always be borne in mind and have due weight attached to them in framing the prognosis in pneumonias consecutive to typhoid fever. The peculiar course of the temperature subsequent to the development of lung-trouble, with its morning fall of 97° or 98°, was strongly suggestive of the existence of centres of suppuration either in the lung or pleura, such as were actually found. The treatment adopted on the development of the pneumonia was a considerable increase in the amount of stimulus, large doses of quinia and carbonate of ammonia. It is needless to add that although the existence of some pleural effusion was clearly recognized, and although on the occurrence of pneumothorax the effects of mechanical disturbance of respiration were very threatening, it was impossible to entertain the idea of operative interference.

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE DIFFICULTIES IN DIAGNOSIS AND TREATMENT OF ANEURISMS OF THE LOWER EXTREMITY.

BY JOHN B. ROBERTS, M.D.

INTERNAL aneurisms are proverbially difficult of accurate diagnosis, and their treatment is likewise fraught with uncertainty and risk. Similar lesions of the extremities, it would seem, ought to present much more characteristic symptoms and be in a greater degree amenable to medical and surgical treatment. The numerous mistakes that have been reported by experienced observers, however, show that this is not the case, for, notwithstanding the comparatively superficial position of the arterial trunks in the extremities, aneurismal dilatations are very serious lesions for the surgeon to attack. In the *American Journal of the Medical Sciences* for 1874, Dr. Stephen Smith has given us an account of a large number of cases where it was impossible to make an absolute diagnosis for or against aneurism until the question was solved by the result of treatment, or by the investigation of the pathologist after death. Again, Dr. Erskine Mason, in the same journal for January, 1877, reports a case in which he ligated the femoral artery for a case of supposed popliteal aneurism, but which was subsequently determined to be a sarcomatous growth. In the *Philadelphia Medical Times* for March 21, 1874, I recorded an instance of spontaneous aneurism of one of the branches of the dorsalis pedis artery, where there was great doubt as to whether the tumor was aneurismal or a ganglion receiving impulse from the subjacent artery. Professor Gross, at whose clinic the patient applied, cut down upon the small tumor to establish its nature, and, finding it to be an aneurism as suspected, enlarged the wound and ligated the anterior tibial near the ankle. Secondary hemorrhage supervened, and the artery was tied a second time higher up; but the patient died some days later, apparently from pyæmia.

Several somewhat similar cases have occurred recently in the wards of the Pennsylvania Hospital, which are of interest on account of the obscurity of diagnosis and the various methods of treatment adopted.

The first case was that of a large popliteal tumor, occurring in a negro aged 26 years, which presented few of the characteristics of aneurism, and yet, from the result of treatment, must be considered as such. The patient four years previous to admission had observed a swelling in the right ham after having, he says, received a strain. He had no marked trouble until about two months since, when he found the tumor increasing; and three weeks ago this compelled him to resign work. There was no history of syphilis. On admission the right knee was semi-flexed, and the popliteal space was occupied by a large mass extending more to the inner side of the limb; the length of the tumor was seven inches, and the girth of the limb over the patella about nineteen inches. There was no pulsation and no thrill in the tumor, which was the seat of pain, and auscultation over the inner side revealed no murmur. The ear at this examination was unfortunately not applied to the outside of the mass. The tibial arteries could not be felt at the ankle. Over the heart there was heard a systolic murmur, probably the result of an old attack of rheumatism which he had had six years previously. The diagnosis lay between aneurism, deep abscess, and some heterologous growth, and in order to clear up the case an aspirating trocar was inserted into the tumor.

A stream of blood, which rapidly coagulated, flowed from the tube, but not in jets; there was no pus mixed with the blood, and pressure on the femoral did not immediately check the flow, though compression continued for some time did seem to do so. The inguinal glands were enlarged, and the saphenous vein was somewhat distended. The day after the tumor was thus tapped, auscultation revealed a distinct, harsh, systolic murmur, heard especially over the outer aspect of the tumor, though it was also perceptible on the inner side of the leg. When the superficial femoral artery was compressed for some time, the swelling in the ham became much less tense and diminished in size. This was further tested by applying the Esmarch bandage and cutting off the circulation for five minutes, when the tumor became very much softer and the girth decreased one-half inch. An attempt to determine the difference in temperature of the feet was not very satisfactory.

It was plain that there was a hemorrhagic tumor in the popliteal space, for the result of the tapping was conclusive on that point. The needle had either entered the cavity of an aneurism or been inserted into a hemorrhagic cancerous growth. Which was the true condition was hard to determine; without the aspirator needle even this much would not have been decided, for the murmur could have readily been caused by pressure from any solid growth compressing the popliteal artery. The question of treatment had to be mooted, and was equally unsatisfactory. If the growth were cancerous, early amputation was the safest course; if aneurism of the sacculated variety, ligation or compression was indicated; but if it were a dissecting aneurism, amputation might be required primarily, or secondarily after some less heroic procedure had been attempted. At the consultation the propriety of controlling the circulation and making an incision down to the tumor was discussed, which would give more certain data; for if the trouble were aneurismal, suppuration of the sac requiring free incision was not unlikely to occur whatever operative procedure were undertaken, and should the swelling be cancerous the wound would not be contra-indicated.

Finally, Dr. R. J. Levis, under whose care the patient was, decided to ligate the femoral artery in Scarpa's triangle and await results, as this was a more conservative procedure than amputation. This was accordingly done with a carbolized catgut ligature, and the wound closed. The murmur of course immediately ceased, but no marked diminution in the size of the tumor occurred. The swelling, however, became very soft and fluctuating, so that it was confidently thought that suppuration within the sac of the supposed aneurism had taken place; and it was decided to withdraw some of the fluid with the aspirator. By accident this was postponed and the tumor never punctured. Very gradually the tumor then began to diminish, and the patient, who had been in good condition and had had little or no pain in the knee after the ligation, regained the use of the limb, and was discharged two months after the operation with only slight swelling remaining.

The second case was in the ward of Dr. William Hunt, and was very different from the first, in that the diagnosis was easily made and the result unexpected.

A man, aged 40 years, whose occupation compelled him to climb awning-posts a great deal, had received years ago a gunshot wound of the inner side of the right leg, near the middle, where a small cicatrix could be seen. His friends say he had a partially-stiff knee for years, though he seems to think that he felt no pain until a week before admission, and he only relinquished work three days ago. On account of the patient being absolutely deaf, it is difficult to obtain an accurate history of the disease.

Examination showed a tumor, the size of a small orange, situated posterior to the head of the right tibia, which was the seat of an expansive pulsation, a distinct thrill, and a loud systolic murmur. Compression of the femoral at the groin caused these signs to disappear. The girth of the left leg at the same point was eleven and a half inches, while that of the right was thirteen and a quarter; when the circulation was cut off by pressure, the meas-

urement fell to twelve and a quarter inches. No cardiac murmur was detected, and there was no history of syphilis. The radial artery did not appear atheromatous, and the dorsal artery of the foot was thought to be pulsating.

This, then, was a typical case of aneurism, and seemed to be a sacculated one, connected with the lower portion of the popliteal or one of the tibial arteries. Treatment by compression was deemed eminently adapted, as forced flexion exerted no influence, because the aneurism was below the joint and opposite the head of the tibia. This method was preferred to ligation, partly because of the success attending a case of external iliac aneurism treated by complete compression by Dr. Levis in the hospital in 1871. In this instance, according to Dr. Levis's report, published in the *Philadelphia Medical Times* about a year later, the patient was kept etherized for five hours and a half, during which time the vessel was completely controlled by the pad of a compressor placed three and a half inches above Poupart's ligament. In the case before us, then, Dr. Hunt determined to try compression, and the pad, placed near the apex of Scarpa's triangle, was retained in position for twelve hours. During the first five or six hours the current was almost if not entirely arrested, because at times no pulsation whatever could be perceived in the tumor, though occasionally it was feebly felt. During the last half of the time, however, pulsation was marked, but I, who had the immediate supervision of the treatment, was afraid to increase the pressure lest gangrene should supervene, and determined to maintain partial occlusion for the rest of the time. Partial flexion of the knee was also employed, and the patient kept well narcotized. Subsequently the pulsation seemed diminished, but, owing to the inflammation of the skin caused by the instrument, no further pressure was applied. Forced flexion was continued without any change taking place. Twenty days later, the compressor was again applied to the femoral, and the man enjoined to keep it screwed up as much as he could bear, but to relax the pressure occasionally when the pain could not be endured. This was the treatment for two days, when it was found that the thrill had disappeared and that the pulsation was so feeble that at times it could be no longer certainly felt. The bruit remained. The tourniquet was used for a day or two longer in the same manner, but omitted at night. Consolidation was evidently taking place, and everything looked propitious; but soon a cloud appeared on the surgical horizon. On the fifth day after the patient began to use the compressor to produce partial arrest of the arterial current, swelling of the leg and great pain in the ham occurred. All compression was discontinued, and the limb enveloped in anodyne lotions. About the same condition of things lasted for four weeks: the swelling decreased a little and the pain gradually diminished, while the tumor was the seat of such feeble pulsation that it is impossible to state whether any actually existed. There seemed every reason to suppose that suppuration was about to occur in the aneurism, which had become filled with clot; but fluctuation did not present itself. At the end of this period, blebs appeared on the surface of the leg, and there were developed rather sudden symptoms of incipient gangrene, beginning in the neighborhood of the ankle. Further conservation was useless and delay hazardous, and accordingly, after consultation, amputation of the thigh was done six inches above the knee-joint. Dr. Longstreth, the pathologist of the hospital, found the posterior tibial region filled with over a quart of laminated and soft black clot, which had pushed aside and forced itself into and around the muscles. No structure could be identified as a vessel or aneurismal sac. The popliteal artery, as far as the middle of the space, appeared normal, and then passed into the mass of clots. The head of the tibia and the bone just below were somewhat roughened, and a portion of the periosteum was removed. No bullet was found imbedded in the tissues, and at the time of dissection the parts presented no evidences of suppuration.

This was evidently an ordinary sacculated aneurism, which at some period of the treatment ruptured and became diffused. The symptoms of the trouble were so characteristic and decisive when first examined, that it seems certain that the aneurism was not diffused at that time; but after partial consolidation of the tumor had occurred, the weakened walls gave way and allowed extravasation among the muscular structures of the calf. This probably took place at the time when the limb rather suddenly became swollen and painful, during the use by the patient himself of partial compression. A case very similar to this was reported at a recent meeting of the New York Pathological Society, where a diffuse aneurism of the anterior tibial artery was followed by gangrene, necessitating amputation, and in which the first diagnosis in the case was cellulitis of the leg. In the present instance, it is impossible to say why the sac ruptured after partial consolidation of the aneurismal contents and a diminution of the blood-current had been effected by pressure upon the femoral; and yet it would appear that such was the fact. The patient, after the amputation of the thigh, did well, and was discharged cured.

A third case of aneurism was admitted by Dr. Levis on March 12, 1877.

The patient, aged 58, while at work, nine or ten months previously, observed a swelling in the right groin, which always pulsated, and which increased gradually until it was as large as an orange. According to Dr. Hand's notes, the man gave no specific history, and said that the trouble was noticed after a hard day's work. The aneurism extended from one inch above Poupart's ligament down to the apex of Scarpa's triangle, and from the pubic symphysis outward to the ilio-pubic eminence. Pulsation could be felt when the fingers of the examiner were seven and a half inches apart. The dilatation therefore involved the iliac and femoral arteries just as the vessel passes from the abdominal cavity upon the thigh. In order to avoid, if possible, the ligation of the external iliac artery, it was determined to introduce a quantity of clean horsehair into the sac to favor deposition of fibrin and the consolidation of the aneurism. This method of treating aneurism was adopted in a case of thoracic aneurism by Dr. Levis some years ago, and would possibly have been successful if the tumor had not been of the diffused variety instead of sacculated, as was supposed. A long, delicate trocar was thrust into this ilio-femoral aneurism, and four long pieces of horsehair introduced through it. The trocar was then withdrawn, in order to leave the hair curled up in the sac. Unfortunately, however, two pieces, being entangled in the trocar, were dragged out with it, leaving within two pieces which measured each about sixteen and a half inches. In the course of three or four days the pulsation seemed slightly diminished, as though there was beginning fibrinous deposit, but at the same time inflammation of the overlying skin, tending towards sphacelation, occurred, and the sloughing threatened to open the sac. The patient stated that a somewhat similar attack of cutaneous inflammation had occurred once before. The danger of rupture of the sac from sloughing and fatal hemorrhage was so great that it was determined to wait no longer for the horsehair to induce coagulation, but to ligate the external iliac artery. Accordingly, four days after the introduction of the hair, an incision was made, from the crest of the ilium to within an inch of the pubic symphysis and half an inch above the crural arch, and a carbolized gut ligature applied. The patient showed symptoms of peritonitis afterwards, and died on the eleventh day subsequent to ligation. No autopsy was obtained, but the sac was opened, and the hairs and a mass of soft black clot found therein.

These three cases are worthy of study as showing the variety of phases that may be assumed by apparently simple and uncomplicated cases of aneurism. In the second case, cure seemed almost accomplished, but the rupture of the sac necessitated amputation by inducing gangrene; the third case unexpectedly required ligation on the cardiac side of the tumor, on account of sloughing of the superficial structures; while patient number one, when amputation was deemed almost the only chance of recovery, was cured by a simple ligation, without any bad symptoms.

INTERSTITIAL NEPHRITIS, IN WHICH THERE WERE MARKED RETINAL CHANGES, PERICARDITIS, AND PERICARDIAL EFFUSION.

BY JAMES H. HUTCHINSON, M.D.

Read before the Pathological Society of Philadelphia, Feb. 22, 1877.

I SHOULD hardly have thought it worth while to bring these specimens before the Society, as they illustrate a very common form of kidney-disease, were it not for the fact that the ophthalmoscope enabled me to make a correct diagnosis in the case some days before I became acquainted with any fact in the patient's history throwing any light upon the nature of the disease from which he was suffering. The patient, who spoke nothing but Italian, a language I do not understand, presented, when first admitted to the Pennsylvania Hospital, the appearance of a man convalescent from typhoid fever. An examination of the urine revealed the fact that it contained both casts and albumen, but it would scarcely have been possible to say what particular form of Bright's disease was present, had not a careful examination of his eyes with the ophthalmoscope been made. There was nothing in his case to call particular attention to his eyes, and no doubt the marked retinal changes which were present would have been overlooked except that it is now my rule to use the ophthalmoscope in every case of albuminuria coming under my care at the hospital.

Before the patient had been many days in the ward, several attacks of epistaxis had occurred. These were so profuse that after the failure of ordinary styptic injections the nostrils were plugged both anteriorly and posteriorly. This tendency to epistaxis, indeed, was for some time the only unfavorable feature of his case, but its frequent occurrence, together with the retinal hemorrhages, gave me but little hope that there would be even a temporary improvement in his condition. The presence of a

moderate amount of hypertrophy of the heart is not without interest, as it is to this condition that the retinal hemorrhages have been ascribed by some authorities. It was also present in the only other case of retinal hemorrhage accompanying Bright's disease in which I have had the opportunity of making a post-mortem examination. In both these cases pericarditis was set up towards the close of life, and in both, doubtless, was the proximate cause of death. In the case which forms the subject of this communication it was of very slight grade, and, although the præcordial region was frequently examined, escaped detection; nothing more than a very soft murmur, evidently of anæmic origin, being ever heard. This was probably due to the effusion present, which, although small in amount, was sufficient to keep the two surfaces of the pericardium apart.

The following history was obtained through an interpreter some days after the patient's admission:

B. B., æt. 25, single, sailor, Italian, admitted February 1, 1877; died February 13, 1877. Until the beginning of his present illness he does not remember ever having been sick, with the exception of an attack of gonorrhœa eight or nine years ago. He appears to have been formerly addicted to the use of alcohol in excess, but since he came to this country, two years ago, he has been temperate. For the last year he has had frequent and profuse hemorrhages from the nose, and for eight months has been obliged to rise at night to pass his water. He has only considered himself seriously ill for the past two and a half months. Ten days before admission he noticed slight œdema of the legs, but has never had headache or dimness of vision.

Upon admission the patient is well nourished, but is mentally rather dull. Upon a close examination the legs and eyelids are found to be slightly œdematous. His tongue has a brownish coating at the base and at the sides, and is slightly fissured, so as to suggest the possibility of his having recently passed through an attack of typhoid fever, which view of his case is confirmed by the frequent occurrence of attacks of epistaxis, and by the presence of tympany and of sudamina.

Auscultation of the lungs reveals a few subcrepitant râles at base of chest, especially upon left side. A soft murmur is heard over the body of the heart which is conveyed feebly both to base and to apex.

The urine is clear, pale, acid; specific gravity, 1010; no sugar; contains albumen one-fourth, and very large granular casts which seem to be free from fat.

February 4.—An ophthalmoscopic examination reveals a healthy disk with central excavation, the vessels being quite small. Striated appearance of retina, upon which were found, especially in the neighborhood of disk, numerous white patches, and hemorrhages both recent and old. About a quart of urine is passed in twenty-four hours.

In spite of iron in the form of the tincture of the chloride, and of the fluid extract of ergot, and of styptic injections, the bleeding from the nose continued, and it was necessary as a last resort to plug the nostrils. The patient, however, removed the plugs, whereupon the hemorrhage recurred, under which he sank early on the morning of February 13. An examination made shortly before death showed that patient's urine contained, in addition to the casts before seen, numerous white and red blood-corpuscles.

The temperature of patient while in the hospital never exceeded 99°, and was frequently as low as 97°.

Autopsy, by Dr. Morris Longstreth, thirty-two hours after death.—Rigor mortis marked; general surface of body pale; no fluid in subcutaneous connective tissue; no emaciation; small quantity of clear serum in abdomen; no evidences of inflammation. Serum and adhesions in both pleural cavities, especially marked at apices posteriorly. Pericardium contains sufficient serum to separate the two layers; serum cloudy, and contains flocculent lymph. Lymph is also adherent generally over surface of heart. Left heart firmly contracted, right heart relaxed. Right ventricle contains fluid blood, watery in character; right auricle contains a fibrinous clot. Left ventricle empty, its walls in contact; left auricle contains a small chicken-fat clot. Weight, sixteen ounces. Valves normal. Left ventricle hypertrophied.

Lungs.—Right, very œdematous, exudes abundant frothy serum, slightly bloody. At right apex a puckering of the lung-tissue; beneath it a white nodule, size of a pea; on section shows a cheesy consistence in centre, surrounded by fibrous envelope.

Upper part of lower lobe on section is deeply red, consistence lessened, surface of section not granular.

Left lung—congestion more marked; on section, serum the same in amount as on the other side, but more bloody; no softening; cut surface not granular. At left apex there is a similar nodule as at right; its centre, however, is not cheesy.

Spleen.—Weight, six ounces. Small, firm, adherent on outer surface; capsule thickened. On section, brownish-red. Presents a normal appearance.

Kidneys.—Left. Weight, three and a half ounces. Small, regular in outline. On section, tissues very pale, large vessels prominent and presenting open calibres. Cortex very much reduced, is streaked, opaquely white; capsule thickened, tightly adherent, though it does not tear the tissue on removal. Surface of the kidney finely granular.

Right kidney. Weight, three and a half ounces. Cortex more reduced than that of left, and the tissue of organ is firmer, otherwise it presents very much the same appearances. Both kidneys have a urinous odor. Perinephritic connective tissue very œdematous.

Liver.—Weight, three pounds and six ounces. Adherent to diaphragm by bands of firm connective tissue. Outline irregular; color normal; tissue very firm.

Skull.—Calvaria normal; dura mater very pale; no subarachnoid effusion; vessels of pia mater only partially filled with blood. Nothing abnormal found in any part of the brain.

Eyes.—Both retinæ showed evidences of old and recent hemorrhages, more markedly in the right than in the left.

CASE OF UNUSUAL FŒTAL POSITION.

BY J. CHESTON MORRIS, M.D.

AT 9 A.M., April 13, 1877, I was summoned to attend Mrs. P., aged 26 years, in her third labor. Her condition during each pregnancy has demanded constant care and attention, as she suffered greatly from nausea, deranged urinary and alvine discharges, threatened miscarriage after very slight exertions, and occasional œdema of the face and extremities. She has also choreic twitchings of the muscles of the face even when in ordinary health.

At my visit I found a slight bloody discharge from the vagina, pains occurring regularly, cervix nearly effaced, os tincæ somewhat rigid but yielding so as to allow the passage of one finger. The pains did not seem so effective as they should have been from their severity. I therefore administered gr. vj of sulphate of quinia; gr. iij more to be taken every two hours. I saw her again repeatedly during the day; the os slowly dilated, but the pains seemed effectual only when maintained by the presence of one or more fingers in the os. At 11 P.M. things remained much in the same state; the os was now dilated to one and a half inches, and the membranes protruded. Thinking the process of dilatation might now be left to nature, aided by the eighteen grains of quinine she had taken, she was left for the night. But at 6 A.M. of the 14th the os was found irregular and soft, membranes not protruding, pains recurring regularly, but without accompanying muscular contraction. As her general condition was good, she was left without active interference until 2 P.M., when six grains more of quinine were administered, and dilatation of the os with the finger again attempted more successfully, as by 4.30 P.M. the circle was two inches in diameter, and membranes protruding. As she had suffered from hydramnios in her last labor, I thought best now to rupture the membranes. When the waters had drained away, which they did but slowly, I endeavored to ascertain the position; this was difficult to do, as the mouth of the uterus had receded high up in the pelvis, and the cervical canal was somewhat narrowed. I waited until 9 P.M., when I determined to etherize the patient and terminate the labor. On introducing my hand I found the right thigh and arm and the left ear and posterior part of the head presenting. With considerable difficulty, owing to the resistance of the os internum, I succeeded, after bringing down the right leg, with the toes up, in finding and bringing down the left leg, then the right hand, and finally the left hand; the body of the child rotating during the extraction so as to bring the spine to the pubes. With the assistance of my friend Dr. H. Lenox Hodge, I then applied the forceps to the head, which was tightly grasped in the cervical portion of the uterus, and delivered her of a small male child, which was with difficulty resuscitated; it was feeble, and breathed or rather sighed feebly for nearly a day after its birth; but with care, and five drops of brandy in a little milk and warm water every two hours, it gradually grew stronger, and is now doing well.

The placenta followed immediately on the delivery of the child; there was slight hemorrhage, checked promptly by the use of ergot and a bandage. On the third day Mrs. P. had a slight rigor, followed by a little fever with frequent feeble pulse; but the administration of inf. cinch. comp., alternating every

two hours with milk punch, was followed with good results; she is now doing well.

The malposition of the fœtus was due, I believe, to the attachment of the placenta on the left of the uterus near the junction of the lower and middle segment. I did not use Barnes's dilators, as in one or two instances after their employment I have found a head-position changed unfavorably. Had I done so in this case, I might have accused myself—needlessly, as the event proved—of having caused the subsequent difficulty.

1514 Spruce Street, Philadelphia, April 24, 1877.

NOTES OF HOSPITAL PRACTICE.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINIC OF PROF. A. JACOBI FOR DISEASES OF CHILDREN, MARCH 21, 1877.

Reported by P. B. Porter, M.D.

VALVULAR DISEASE OF THE HEART, WITH HYPERTROPHY.

THIS child (a little girl of six years) was before you some little time ago, and I now find her condition considerably improved. If you will remember, there was quite a marked systolic mitral murmur in her case. In adults, as you are aware, when a mitral murmur once exists it remains forever. In children, on the other hand, these murmurs not infrequently entirely disappear in the course of time. This is explained by the compensation which may result from changes in the shape of the heart and its ostia. The organ becomes hypertrophied, and there is a new adaptation of the valves to the orifices. You will notice the enlarged veins about the neck and breast in this child. Such a condition is abnormal, and shows us at once that there is venous obstruction somewhere. As we have seen, it is in the heart in the present instance. I would also call your attention to the peculiar formation of this chest. It is what is known as the "pigeon breast," and, instead of being elliptical in shape, as it ought to be, it is triangular, with a flat dorsum and flat sides anteriorly. This condition is due to the existence of rachitis in early life, and thoraces of this character sometimes give the idea that hypertrophy of the heart is present when this is in reality not the case; because a larger portion of the organ impedes against such a flattened chest-wall than if the latter were of the normal rounded character.

Here, however, there is no doubt about the existence of actual hypertrophy. In mapping out the outlines of the heart, I find that the percussion-dulness extends a whole inch to the right of the sternum. There is, therefore, an immense enlargement of its right side, and there is in addition a little tipping of the organ to the right. This hypertrophy proves conclusively that the murmur which we hear is not due merely to functional trouble. This little patient has been taking iron, with a little digitalis, and, as she has improved very much under the treatment, we will continue the same.

CHOREA MINOR, WITH VALVULAR DISEASE OF THE HEART.

Here is another child (a boy of eight years) in whom we find the same murmur and the same condition of the heart, except that the enlargement is not so marked as in the last case. You have seen this patient also before; and when he was then presented to you the choreic manifestations were very much more prominent than they are now. It is probable that the same rheumatic trouble which gave rise to the chorea also occasioned the heart affection; and you all know the connection between chorea and disease of the heart. In this case there may or may not have been an endocarditis. This boy has been taking iron and arsenic. We commenced with three drops of Fowler's solution three times a day, and gradually increased the dose to eight drops. In giving arsenic you have to feel your way up carefully, so as to avoid unpleasant symptoms, and you will find a great difference in individuals in their tolerance of this agent. As you have noticed, the patient is very much improved; and we will not therefore push the dose any further than eight drops at present.

SPINA BIFIDA.

The baby now before you (five months old) you will, no doubt, remember also. It was here about two months ago, when I showed you the tumor, filled with fluid, which is situated on the lower part of the spine, and is two inches in diameter and elevated fully an inch above the surface of the back. At that time I told you of the dangers to which the treatment by injection, recommended by some, may give rise, viz., draining of the cerebro-spinal fluid, and meningitis. We found that the tumor had not grown much, but that the head was increasing in size, the anterior fonta-

nelle being remarkably large. Pressure over the fontanelle at that time occasioned convulsive symptoms, and since then, the mother informs us, the child has had a number of spasms,—though none within the last two weeks. You will now notice that upon the upper portion of the tumor there is a bluish portion, indicating a thinning of its walls, which are composed simply of dura mater in this part. In accordance with my directions, the mother has prepared a cup-shaped covering, which is held in position by a band passing around the abdomen, to protect the mass; but there is daily increasing danger of rupture of the sac, which would cause a draining of the brain and spinal canal, and give rise to hyperæmia, meningitis, convulsions, and death. This now seems imminent, and this is, unfortunately, the only prognosis which I can make in the case. My intention was, had the mother consented, to have placed the infant in some hospital, where a small daily puncture could have been made, allowing the escape of two or three drops of the cerebro-spinal fluid, and also where slight but continuous compression could have been kept up. Had this been done, we might perhaps have looked for an entire cure, but only in the course of several years.

On placing my hand over the anterior fontanelle, I am not able to detect any pulsation, or, at all events, it is exceedingly slight; and this indicates effusion undoubtedly. Ordinarily, as long as the fontanelle remains open, the pulse can be felt more strongly there than over the radial or temporal arteries, or in any other part of the body. The complete connection between the brain and the spina bifida is shown when I place one hand on the latter and the other on the anterior fontanelle. When pressure is made upon the tumor I feel a distinct bulging of the fontanelle under my hand, and as soon as the pressure is removed it immediately subsides again. This procedure seems to occasion the infant no uneasiness whatever.

SCOLIOSIS WITH DISEASE OF THE STERNUM.

This child, which is now nearly two years old, was first presented at the clinic eleven months ago. The history then given was that of a pleuro-pneumonia of the right side, which resulted, on account of the contraction of the pulmonary tissues, in a permanent flattening of the chest-walls and a marked distortion of the spinal column. When I suspend the child by placing my hands in his axillæ, you can plainly perceive that the scoliosis is not functional. Anteriorly, you notice, we have the "pigeon-breast" again, and over the sternum, at its most projecting point, there is an ulceration which has made its appearance since the case was here before. On inserting a probe into the fistulous orifice which here exists, I find that it enters for two-thirds of an inch, and still I feel bone. This means that the bone is much swollen, and osteitis is going on. This process is quite rare in the flat bones, but is of frequent occurrence in the long ones, particularly the phalanges. The old name of *spina ventosa* describes very well the tumefaction that takes place in the bone-substance. In order to prevent spreading of the osteitis and perforation of the bone interiorly in this case, I would inject the cavity with a solution of one or two grains of carbolic acid to the fluidounce of water, and keep the orifice open; and the child ought really to be placed in a hospital, so that it could be treated to the best advantage. It may be that the posterior layer of the sternum is already perforated; but I have not been able to detect this if it is so, for then the probe would have passed directly into the cavity of the thorax.

Now, however, on twisting a pledget of lint into the opening, I find that it is immediately pushed out again by the expansive force of inspiration, which shows that there is no longer a blind cavity, but that perforation has already taken place, leaving the pleura and pericardium in a measure exposed. There is, therefore, so much the more reason to make the injections of which I spoke, and to keep the orifice open, in order to prevent the formation of a peri-pleuritic abscess. It may perhaps be necessary also to dilate the opening. In similar cases in adults I have sometimes found it advisable to make exsections of portions of the ribs.

STRUMOUS OSTEITIS.

This child, now about twenty-one months old, had a fall ten months ago, and from this resulted disease of the zygoma, which has continued up to the present time. It has also been followed by other bone-trouble. About six weeks ago it appeared in the carpal and metacarpal bones on the

opposite side of the body, and within the last four days the lower epiphyses of the humerus, on the same side, have become affected. Now the question arises, is all this osteitis due to the common origin of the fall ten months ago, or are we to attribute it to a general constitutional predisposition to this form of disease? Unquestionably the history of these successive attacks shows a dyscrasia in the system, and the fact that three have occurred within a year leads us to expect that others will follow, unless the condition of the child's constitution can be changed. In young children physiological changes take place more rapidly in the bones than in any part of the system except the brain; and especially are they active in the tissue between the epiphyses and diaphyses. So, too, as we might expect, it is found that pathological changes are exceedingly rapid here. You have seen how frequent disease of the hip-joint is. The epiphysis of the femur in young children is two or three inches long; so that when coxitis occurs in early life, a large quantity of tissue is at once involved, and the whole joint rapidly fills with pus. At the end of the sixth or seventh year, when ossification has progressed very extensively, the disease is not so dangerous, and suppuration does not take place until its third stage has been reached.

In children in whom there is a tendency to dilatation of the blood-vessels, a rapid proliferation of tissue-cells, and the formation of pus (a condition known by many as scrofulosis), the skin, the bones, or the glandular system are affected in different individuals according to the peculiar circumstances of the case. In cases such as this there is sometimes complete recession of the joint, as it is called, within a very few weeks; that is, the suppurative action is so great that the entire epiphysis actually drops off.

Now, here is a child in whom a pathological process is going on in different parts of the osseous system at the same time; and in all probability a number of other epiphyses will still be attacked. But if we could change the character of the tissues there would be no new development of disease; and it therefore behooves us to inquire if there is anything which will so improve the general condition as to fortify the system against further attacks. Well, we might give nitrogenous food, phosphate of lime, the hypophosphites, cod-liver oil, and syrup of the iodide of iron. The efficacy of phosphate of lime has been much doubted of late, because almost immediately after its administration it is found in the urine. Still, we know that iron does good; and yet about all that is taken seems to pass off in the excreta. The manner in which I have been treating these cases of late is different; but I have been quite pleased with its success thus far. A year ago I commenced giving phosphorus in substance, for the reason that I had read that it had been unquestionably demonstrated that in rabbits fractures of the bones united much more rapidly when phosphorus was administered to the animal than when the process was left simply to nature. In the present case I wish to cause an increase of osseous elements, if possible, and with that intent I shall direct from one-ninetieth to one-sixtieth of a grain of phosphorus to be given to the child three times a day. It may be administered in cod-liver oil if you please.

In the way of local treatment, the opening in the zygoma should be probed from time to time, and a pledget of lint inserted, so as to keep it free for the exit of small pieces of bone which may still come away. A number of such have already done so. The diseased elbow should be protected by a sling, and the hand at present treated with applications of ice.

TRANSLATIONS.

On the Entrance of Air into the Veins (*Le Mouvement Médical*, No. 8, p. 121).—M. Louis Couty has made a number of experiments in the laboratory of M. Vulpian to determine the effect of the entrance of air into the veins, and has come to the following conclusions:

Death does not take place through the brain, as the air does not pass beyond the vertebral arteries. It does not paralyze the right side of the heart, the movements of which it excites both mechanically and chemically. Cessation of the heart's action does not occur, except as one of the last phenomena, after paralysis of the voluntary and respiratory muscles. The arrest of circulation was not due to any obstruction of the pulmonary capillaries; the main branches of the pulmonary artery contained pure blood unmixed with air:

no absolute stoppage, but only a diminution of the aortic current, was found to occur.

Having disposed of these theories, M. Couty claims to have established an exact symptomatology which can be practically applied in cases of this accident. He recognizes four points:

1. Diminution of the aortic contents; loss of arterial tension; acceleration of the heart; no general symptoms.

2. More considerable loss of tension; accelerated respiration; syncope; paleness; dilatation of pupils, etc.

3. Aortic current little or nothing; excitation of the motor centres; convulsive movements of the voluntary muscles; involuntary defecation and micturition; respiration slow, deep, apoplectic.

4. No arterial tension; death of the brain and cessation of convulsions; then arrest of respiration; and, finally, stoppage of the heart's action.

The arrest of the pulmonary circulation he believes to be due to a mechanical disturbance of the heart. The gas, sooner or later arriving at the right side of the heart, passes the valves, enters the ventricle, and remains there, dilating by its elasticity the ventricular walls.

This distention may take place slowly, but it is constant, often doubling or tripling the normal size of the right heart. From this distention result the following consecutive phenomena:

1. The contractile force remaining the same, and the resistance augmenting, the auriculo-ventricular contraction becomes more and more incomplete.

2. The walls contracting on a gas instead of a liquid compress it without driving it out.

3. The orifices of the right side remaining patulous, the foaming mixture of blood and air regurgitates into the veins and is carried to the most distant parts of the system. This reverse current persists until the distention passes certain limits, when death results.

After a consideration of the many therapeutic means recommended in this condition, the writer selects two,—one mechanical, the other chemical. The first consists in free venesection, which by diminishing severe pressure diminishes the distention of the heart; the other, in inhalations of oxygen, which by relieving the lungs of the accumulated carbonic acid facilitate the passage of the air accumulated in the heart.—J. W. W.

Apoplexy of the Retina in Pernicious Anæmia.—Dr. A. Nykamp, of Leyden (*Berlin. Klin. Wochens.*, Feb. 26, 1877) has made some observations confirmatory in some respects of those by Schiess and Manz, but also to a certain degree contradictory of the results of these observers. Schiess and Manz found the hemorrhagic patches dark brown with a sharply-defined light centre, the latter containing small roundish cells usually with small nuclei, occasionally filled with finely-granular protoplasm. Around these centres were red blood-corpuscles, giving color to the patch. The capillaries showed lateral or ampullar enlargements, empty or filled with white or red blood-corpuscles or with a finely-granular substance almost structureless. These enlargements are either in the calibre of the capillary vessels themselves or in the lymph-sheaths. Schiess and Manz regard the retinal apoplexy as analogous to capillary cerebral apoplexy.

Nykamp observed the brown hemorrhagic patches, but found no white centres. He found the enlargement alluded to, together with the contents observed by Schiess and Manz, but rarely. Red blood-corpuscles were found here and there in the angles between two branching capillaries and in the sheaths of the vessels. Collections of red corpuscles could be observed here and there surrounded by a sort of sheath, and, when of some duration, lighter in the centre but showing the cell-contours distinctly. Nykamp asserts that these last collections are quite independent of the vascular walls. He concludes that the retinal apoplexy does not depend upon rupture of the vessels, but upon diapedesis. Neither the light centres nor the capillary ectases are necessary attributes of these hemorrhages. X.

Poisoning by the Irrespirable Gases developed from the Explosion of Dynamite.—Dr. Senfft (*Berliner Klin. Wochens.*, 1877, p. 118) gives an account of certain miners poisoned by entering a tunnel just after an explosion of dynamite. The symptoms were those of intense asphyxia. Face and hands dark bluish red; bloody froth at the mouth; ecchymoses of the conjunctiva bulbi; pupils dilated and not reacting to light; entire unconsciousness; pulse small, 125 to 130; skin cool. The respiration was irregular and

shallow, inspiration sometimes stertorous, with puffing of the cheeks during expiration. Auscultation showed signs of pulmonary œdema; weak heart-sound, with occasional diastolic murmur like that heard on compression of the veins of the neck with a stethoscope. Stools, urine, and semen passed. Cold applications to the head, large sinapisms to the chest and calves. Twelve ounces of blood taken, and artificial respiration maintained. The patients could not swallow medicines. No improvement resulting, hypodermic injections of acetic ether were employed, with very favorable results. The patients all recovered, but had severe bronchitis and pharyngitis. The gases developed by the explosion of dynamite are carbonic acid and nitrogen. x.

Transfusion of Blood in Cases of Pyæmia.—This operation has been performed in pyæmia three times by Marcacci (*Annali Universali di Medicina* (*Parte Rivista*), December, 1876, p. 504; from *Rivista Scientifica*).—In the first two cases the transfusion was fruitless, but in the third instance was followed by prompt cure. The unsuccessful cases were patients who had had successive chills and in whom the metastatic abscesses had already formed; wherefore the operation of transfusion could not overcome or modify the grave organic alterations. The third one was transfused immediately after the first chill, and a cure resulted.

Human venous blood was first employed, but in the last two instances lamb's arterial blood was the fluid injected. The symptoms after the operative procedure was employed were, it is stated, identical in all the subjects, and consisted of great oppression of breathing, cough, dyspnœa, and agitation; afterwards there followed redness and burning of the face, pulsation of the temporal arteries, full pulse, a feeling of comfort, calm respiration, etc. Sometimes a feeling of hunger was aroused and intelligence became clear, and sometimes profuse sweating occurred. The conclusion derived from the cases is that transfusion can be employed with great advantage in the first manifestations of pyæmia by arresting the morbid processes, but if abscesses have formed, although amelioration may be obtained, a cure is impossible. J. B. R.

Toxic Properties of Watery Infusion of Phosphorus. — Fischer (*Centralbl. f. Med.*, 1877, p. 32) remarks that the question as to whether a watery infusion of matches can give rise to symptoms of phosphorus-poisoning is one of importance from a forensic stand-point. His experiments go to show that such infusions possess markedly poisonous properties. A watery infusion of matches, even after repeated filtration through thick linen, contains so much phosphorus in a finely-divided condition as to be decidedly luminous. The fluid is, however, perfectly transparent, and even after long standing throws down a very few globules of phosphorus. x.

Treatment of Catarrh of the Bladder.—Edlefsen (*Deutsches Archiv f. Klin. Med.*, Bd. xix. Heft. 1) recommends the use of chlorate of potassium in acute as well as chronic vesical catarrh. It rapidly diminishes the proportion of pus in the urine, lessens or even removes the subjective troubles, and keeps the urine acid.

Edlefsen recommends this remedy in these cases more particularly when oil of turpentine, usually a very efficient remedy, is contra-indicated: thus, in co-existing catarrh of the stomach, gastric ulcer, or nephritis, he prescribes ol. terebinth. rectif., in doses of ten drops three or four times a day in capsules. The chlorate of potassium he prescribes in solution,—fifteen to three hundred parts water; a tablespoonful in water every two or three hours. x.

Oxide of Zinc in Chronic Diarrhœa.—Dr. Bonamy (*Bull. Gén. de Thérap.*, 1877, p. 259) has employed this agent with great success in obstinate diarrhœa characterized by the frequent passage of abundant sero-bilious stools, without tenesmus or colic, and with only moderate pain in the abdomen. To prevent nausea and vomiting, he combines the zinc with carbonate of sodium:

℞ Zinci oxidi, gr. c.;
Sodii bicarb., gr. xvj.—M.

Div. in chart. no. vi. One to be taken every three hours.

In M. Bonamy's experience, even the most rebellious diarrhœas, which had resisted all other means of treatment, yielded to this, and its effect was very rapid. x.

To Prevent the Formation of Milk, Dr. Peaslee, of New York, recommends that the breasts, after delivery, be tightly strapped by means of adhesive plaster. In five cases he reports perfect results.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 9, 1877.

EDITORIAL.

NOT A CASE OF MALPRACTICE.

A CASE has just been decided in the Supreme Court of Maine which is worthy of brief record. Dr. Eugene F. Sanger, President of the Maine Medical Association, was sued for malpractice by the father of a child upon whom he had operated for club-foot. It appears that for a time the doctor not only attended the child for nothing, but even paid for the Scarpa shoes, but finally, tiring of this, refused to continue the case unless the necessary appliances were furnished. This not being done, the feet reverted to their original form. Seven thousand dollars damages were claimed, because the surgeon, in his treatment of the case, had not followed the practice of Dr. Sayre, and at the operation had allowed the escape of a teaspoonful of blood and had cut the theca of the tendo Achillis. There was quite a long trial, in which it was not proven that the theca of the tendon was cut in this case, but it was proven that no amount of skill or care could prevent with certainty wounding of the theca, and that no more blood was lost at the operation than usual, and that the ultimate bad result was owing to the negligence of the parents. After all this, and after the lawyers had, with great ability, argued the case and earned their fees, the jury brought in a verdict for the defendant. Surely in a case like this the law ought to require the expenses of the defendant to be paid by the plaintiff.

DR. SUTTON, the last survivor of ninety-eight surgeons and assistant surgeons with Nelson at Trafalgar, died recently. He had been over seventy years in the English naval service.

CORRESPONDENCE.

LONDON LETTER.

IN a recent letter I gave some account of the charitable medical institutions of Great Britain, and of the government or imperial poor-law relief organization. In the latter I omitted to say anything of the arrangements made for lunatics and imbeciles. Yet these are now the most elaborate of all the institutions of this country. The growth of these latter is quite of recent origin, and, up to a comparatively recent period, St. Luke's and Bethlem were the only places for receiving insane patients. The latter is the well-known institution in Lambeth, incorporated in the reign of Henry the Eighth, and which has done such an immense deal of good during its long history. The "Tom o' Bedlam" so often referred to by writers indicates the general acquaintance with this institution. St. Luke's was extended in 1757. Since the date of this latter building, lunatic asylums, private and public, have sprung up over the land. The private asylums are under the control of their proprietors, each of whom must be licensed, and in order to procure a license the individual and his residence must be carefully scrutinized as to their respective features. Then there are commissioners in lunacy, who go about and thoroughly supervise the different institutions, listen to the statements and complaints of the inmates, and look into their validity, and, if abuses exist, rectify them. One commissioner, Dr. Crichton Browne, is the Lord Chancellor's visitor, and his duty is to visit the lunatics whose property is controlled by chancery. If the patients are found in squalor, or not treated according to what is fairly to be expected from their social position and means, the owner of the institution is severely reprimanded, and would lose his license if repeated charges were brought against him. Of course, private-asylum keepers vary like any other body of men, and the patients are doubtless more comfortable with some than with others. Even in cases where only a single lunatic is taken into a private house, the commissioners visit yearly, and note the condition of the patient. As to lunatics who are without the means to maintain themselves in a private asylum, they fall under the provisions of the poor-law, and are removed to the public asylums. These public asylums belong either to towns, as borough asylums, or to counties, or unions of counties, as county asylums. Here the patients are kept at the expense of the rate-payers. Before a patient can be admitted into any of these public asylums, the certificate of one medical man, countersigned by a justice of the peace, is necessary. No lunatics are permitted to be kept in the ordinary workhouse, where they cost considerably less than in our public asylums, without special certificates that they may

properly be permitted to remain there; and the commissioners can at any time order these lunatics to be sent to the asylum if there seems any reason to think they would be better there. These workhouse lunatics are under the supervision of the commissioners, so that they are protected from any ill usage, and can prefer any complaint they choose, and be heard. The only lunatics not visited by commissioners are a few harmless imbeciles, whose friends are permitted to take charge of them; but even they are visited quarterly by the poor-law medical officers of the districts. So much for the care taken to see that these unfortunate creatures are not neglected or ill treated.

The great matter of interest connected with the public control of lunatics is the different manner in which insanity is now regarded as compared to times past, and but recently past, too. The horribly cruel treatment of chaining insane people to articles of furniture or to staples in the wall, and feeding them on the coarsest of food, and too often on garbage, and, indeed, keeping them in the most economical manner, is yet remembered by old persons. At present, however, it is only now and again that society is shocked with the details of the treatment of some unfortunate lunatic who has been kept by his relatives in secrecy and in squalor.

The first step forward was to have them placed where they would at least be taken care of, and where they were safe from ill usage and personal violence. In these asylums they were under the control of those accustomed to persons in their condition and acquainted with their wants. If no active attempts towards cure were made, at least kindly thoughtful treatment was secure for them. After a little more time, this plan of merely keeping lunatics out of harm's way, and putting them where they were no longer exposed to the jeers of those around them, often as hard to bear as the bodily pain inflicted upon them, came to be regarded as a social blot, and keen articles were written upon the then existing plan. Perhaps even yet it may be true in one or two instances that asylum-keepers are not anxious to cure, and so lose, a lucrative patient; but of the management of our large public asylums this is certainly far from the truth. Amidst the number of really able men who now govern these institutions, the rivalry for pre-eminence, and especially pre-eminence in their percentage of cures, is keen and sustained. Any one who is familiar with the West Riding Asylum Reports issued the last half-dozen years will see what intelligence and perseverance are now brought to bear upon the inmates of that famous Yorkshire asylum. Not only are there no pains spared to do all that medicine can do for them, but those patients who are fit for such duty are permitted to work in the fields, the laundry, and the workshops connected with the asylum. Such exercise and mental activity are found to be useful curative agents in many cases, while in less hopeful cases they relieve the monotony of the patient's existence. Regular walks under the control of attendants are resorted to for other patients, while even the most helpless and unmanageable are permitted fresh air in the airing court. The chapel is also a remedial agent, and the denial of permission to attend the service on Sunday is a penal agent of no small value. The weekly ball also is a matter of importance, and a patient commencing to be unruly is usually brought to order by the threat of not being permitted to be present at the next ball. Such are the humane measures now resorted to in lieu of the stick, the strait waistcoat, the turning chair, and the water torrent. Those patients who are convalescing are sent to a certain portion of the institution set apart for them, where they can be amidst others recovering, and away from the distressing sight of those who are still unrelieved. The more violent patients are separated from the others whom they disturb, and ceaselessly talkative patients are put among the dements whom even they cannot annoy. Everything is done to take away from the poor lunatic's mind the idea of a jail, and no restraint of any kind is in use there. The padded room is the only coercive measure resorted to. The attendants are carefully supervised, and no unkindliness even of speech is tolerated. Many of the patients after their complete recovery have found there a home, and have taken service in the asylum, rather than return to their friends and be subjected to allusions, how painful they alone can tell, or to a pity equally torturing.

Something may now be said as to the medical measures in use there,—and, of course, elsewhere, but the writer's personal experience is chiefly in relation with the West Riding Asylum. The general health is invariably attended to scrupulously. Fresh air, good food, and clean raiment are supplemented by tonics, hæmatics, and sedatives. Bromide of potassium, chloral, and cannabis indica have been found of great value. For the control of mania the succus conii has been tried, with but doubtful results. Bromide of potassium ʒss, with tinct. of cannabis indica ʒi, is very useful in cases of excitement, especially with progressive softening after a clot, while chloral (ʒss to ʒi) is excellent in the forms of excitement of an epileptic nature. Morphia, in half-grain doses, is found the best agent in mania a potu; while bromide of potassium ʒj and liq. ergotæ ʒiii is the favorite combination in chronic epileptic excitement. The excitement of senile dementia is found to be intractable, and the treatment turns on the peculiarities of each case. In excitement associated with a febrile condition, twenty-minim doses of tincture of digitalis every three hours, night and day, are found to be very efficacious. This treatment

seems especially suited to cases of subacute cerebritis, where great motor impairment and dementia accompany and succeed outbursts of fury. Mustard packing is rarely resorted to, but at times produces excellent results. With these measures are combined a generous diet, and attention to any causes of irritation or excitement, as masturbation, etc.

In melancholia of a hypochondriacal nature, morphia, pushed to one-grain doses, with sulphate of magnesia, has been found to be the most successful practice. In ordinary cases of melancholia, belladonna has produced good results frequently; at times the combination of belladonna with morphia has seemed more satisfactory.

General paralysis is a malady which often taxes the therapeutic skill of the alienist physician. These patients are liable to outbreaks of the most ungovernable character, in which they use excessive violence, and it is with such patients that post-mortem discoveries of several broken ribs are associated. Their violence must be met by some form of restraint, and, as mechanical restraint has been abandoned, of course human control has to be substituted, and in the tremendous struggles which follow the patient is sometimes injured severely, without any malice on the part of the attendant. The wonder really is that more of such cases do not occur. For the control of such outbursts, at one time tartar emetic in scruple doses was given, with the results of immediate prostration, but too often a pustular inflammation of the stomach was the ulterior consequence, of which, not rarely, the patient died. Noting the muscular prostration which experimental research had demonstrated to be the result of a dose of the calabar bean, Dr. Crichton Browne (the medical superintendent) used this agent during the periods of excitement, with excellent results. Not only were these attacks of excitement and furor greatly mollified thereby, but, in a number of cases, the general excitability was lowered, and some improvement even inaugurated. The depressant action of chloral is also of great service in controlling such cases. In some cases it becomes desirable to shave the scalp and rub in croton oil, a measure indicated in the most intense and otherwise intractable forms. In epilepsy, chloral is found very useful, while inhalations of nitrite of amyl ward off the attacks and greatly reduce them in number. Where epilepsy is the result of peripheral excitement, as of the genitals at the climacteric period, at puberty, or occurs with teething, the bromide of potassium is most useful, just as it is in similar affections of the sane. In acute dementia, tonics, warm clothing, exercise, and labor, with extra diet and cod-liver oil, are found of great service. Here, too, it is necessary to watch the habits of the patient, and prevent masturbation. Where it is consecutive to mania, this last measure often leads to surprising results. Phosphorus has not been found to be of much service in these cases.

This brief sketch will be sufficient to indicate that the spirit of therapeusis is active in this establishment at least, and that the modern treatment of insanity in its various forms involves the most skilful application of remedial agents. The annual reports above mentioned tell that while pathological research, especially histological, is steadily pursued, the etiology of insanity and the effects of remedial agents are carefully studied. In the sixth volume of these Reports, just published, is a paper on hyoscyamine and its utility in the treatment of some diseases of the insane, by Dr. Robert Lawson, a man of whom more will be heard by and by. He has found that hyoscyamine induces a certain amount of intellectual excitement, combined with muscular powerlessness, which renders it admirably adapted to those cases where the furor is as much badness as insanity. In these cases the muscular powerlessness induced by it has an excellent moral effect upon the patient. The sedative effect of henbane upon the genito-urinary organs is well known, and Dr. Lawson has found the extract of especial service in cases of passive retention of urine in general paralytics. One of the greatest nuisances in asylums, as in jails, is the tendency of certain patients to tear up their clothing, bedding, etc. This is quite as much malice as madness, and it is found that a dose of three-quarters of a grain of hyoscyamine in such cases does immediate good, and acts as an effective lesson for some time after. There are other interesting and instructive papers well worthy of perusal in the present volume.

Much of the remedial treatment of the insane consists in the arrangements made for their comfort, and in the attitude and bearing of their attendants. No unnecessary chiding, no unkindness, as well as no neglect, are permitted, under penalty of immediate dismissal. Within his institution the medical superintendent is supreme, and, consequently, his wishes are consulted as well as his orders obeyed. If once the authority of a principal is limited by the interference of the committee, his usefulness is crippled and his prestige gone,—a matter about which committees are hardly sufficiently cautious. As soon as the return of reason permits, the patients are drafted away where their surroundings are still more conducive to complete recovery. When the patient is fit to labor, work is permitted. At stated intervals the friends of the patients are allowed to visit them, and at Easter-time the place is actually crowded by pushing, homely, but kindly strangers making their way to see if their relatives are getting any better; if there is any prospect of their return home even at a distant date; and, failing that, to bring them home-news and accounts of what is happening amidst old friends and acquaintances. The

increasing percentages of recoveries serve to cheer alike the patients and their friends; they are gratifying to the medical officers concerned; and they are acceptable to the rate-payers, who are finding out that it is cheaper to cure lunatics than to keep them under control until removed by natural causes. Consequently, everybody is pleased at the progress made.

There is one uncomfortable feature about these large county and borough asylums, and that is the rate at which they are increasing. Alike in the manufacturing districts of Yorkshire and in the agricultural county of Devon, the increase of asylum-accommodation required is very serious. This matter has attracted much attention, and though doubtless cases of insanity are now much more strictly looked after than in times past, and sent off to asylums, still there can be no doubt that insanity is largely on the increase. That it is not the hopeless matter from a curative point of view that it once was is illustrated by popular comments. When a person is in a towering passion, or furiously drunk, it is common to hear some bystander remark, "A week or two at ——— Asylum would do no harm," mentioning the name of the asylum of that district, or perhaps some more generally notable one elsewhere. Middlesex has just added a third asylum to the old famous institutions at Colney Hatch and Hanwell. This new asylum is on the downs of Banstead, near Epsom race-course, a most healthy locality. In building a Middlesex asylum in Surrey, I believe there was no intention to give any warning to the frequenters of Epsom race-course, but that merely it was the best site procurable within a convenient distance of London. This new building has cost about £400,000, and has accommodation for 2000 inmates. It is intended to draft to this asylum the more promising cases from the other two institutions, the convalescent and the less troublesome patients, leaving the intractable cases where they are. Probably ere long it will be a common saying when a person is becoming more reasonable after an unreasonable period, "He is getting fit for Banstead."

One of the great difficulties of all important institutions where beds and nursing are concerned, is that of the female superintendence. At present St. Mary's Hospital is in convulsions from complications which have arisen in its domestic arrangements. The quarrel, which seems to have commenced in some differences betwixt the resident medical officers and the matron about the nurses, seems to have thrown the whole place into a blaze, from what leaks out of their meetings repeated and prolonged. A large portion of the committee stand steadfastly by the matron, while some of the leading members of the medical staff and of the medical gentlemen on the committee are as earnest on behalf of the resident medical officers. There has been an extensive washing of much dirty linen, often in small pieces, and even of a fragmentary character, and the laundry-work has not tended to produce the conviction that hospitals are a kind of Paradise for their resident inmates. The ventilation in this scandal is of the most thorough character, and some of the meetings have been very breezy, it is said. So far, however, the matter has not got into the public press, which is rather a misfortune, as thunderstorms clear the air, and the atmosphere of most hospitals and similar institutions is much closer and more sultry than is agreeable.

The following remarks are of a general character, and do not apply in any way specially to the just-mentioned squabble. Committees, as a rule, consist largely of men who are pushing forward socially, and anxious to get on a higher rung of the social ladder than that on which they were originally mounted, and of course they have individually little time to know anything about what really goes on. Consequently, a few members, who have more zeal or more leisure, work the whole thing, and the rest vote with them. In time the impression gets about that these active members discharge their duties thoroughly, and their power and influence are supreme. Often, however, their discharge of their duties is as rotten as that of the bulk of the committee, and they get their information from desultory chats with the secretaries, the head female officials, or perhaps the porters. In fact, they seem to prefer every means of getting information except the straightforward and sound plan of going and seeing the working of the place or places for themselves. The fact that the female element is always or nearly always to be found at home, and without any pressing duties to interfere with a gossip, is a great temptation to members of the committees to drop in upon them in their visit and hear how all goes on from these female sources. It might be uncharitable to insinuate that these elderly personages find feminine utterances more pleasant and easily comprehensible than the more complex and more complete statements that might be made by the younger persons of their own sex, or to hint that the sort of semi-flirtation which thus is permitted has its own attractions; but the facts are that the female officials usually, and as a rule, occupy a very different position from their ostensible one, and the one they ought properly to occupy. It may be said that, generally speaking, these mixed authorities and bisexual governments are the curse of the institutions of England which are supported by voluntary contributions. These women officials in the guerilla warfare of domestic hostilities have the best of it in many ways. They have plenty of spare time, they have lots of opportunities of giving great provocation in small things,

and much tact in seizing upon any acts of retaliation ; they are of more mature years, and they have no greater aims or subjects of thought to lift them even temporarily above their uniform littlenesses. If we are to trust to George Eliot's description of the mental processes of Rosamond Vincey in Middlemarch, the female mind is much more engaged with trifles, which they examine with a mental microscope, than with larger things, while this exclusive devotion to small matters unfits them for the consideration of greater subjects. There is a plausibility, a capacity to put one side of a subject luminously forward and to leave the other in Stygian darkness, possessed by woman, as compared to man, which doubtless is most effective with gossiping old gentlemen, who undertake what they know they neither can nor will try to perform, if ever they seriously look the subject in the face. The writer has had enough of experience on this subject to know that there should be no woman above a menial rank in any institution which is controlled by a committee, if that committee is made up largely of gray-haired men. If there is a good proportion of younger men the danger is less ; but even then it is well to have the ladies of average plainness and limited loquacity. But, as younger men have rarely the leisure or the ambition to get on committees, the only safe plan seems to be that of abolishing the higher female posts, and appointing men superintendents, as at least a lesser evil.

It is very unfortunate that there should be such difficulty in managing women in institutions where, when they do act properly, they are simply invaluable, and that domestic rows should be so constantly brewing and bursting all over the land in our hospitals ; for if these higher female posts have to be abolished it increases the already existing difficulties of single women and widows making a livelihood in a reputable way. This is specially unfortunate at a time when several other experiments for employing educated women are cracking. The female clerks in the telegraph department are a failure, for they kept the wires engaged in larking with male clerks, to the great hindrance of business. The London and North-Western Railway Company have given up their female clerks at the windows : they could not subordinate their flirtation-instincts to the requirements of the passengers, and so guards could not get their trains away with punctuality. In fact, as women are educated at present they do not seem capable of properly comprehending the importance of business and the necessity of subordinating all other matters to it,—that is, during business hours ; and until they do, business must simply do without them. That they should also be practical failures in the domestic management of institutions is a matter for still deeper regret. On talking the matter over with a cynical and confirmed bachelor, he suggested that there was still another plan of enabling committees to work with superior female officials which might be worth trying. He founds the idea on a remark often made by the cleverest woman he knows, viz. : that nobody but a woman can understand a woman. Assuming this to be true, as it probably is, it might be well to have a lady or two on each committee, so as to secure a true and just equilibrium once more, and enable institutions under double and bisexual executive to work smoothly. The lady on the committee would and could easily counteract and explode all the secret ways and doings which are so undiscoverable and dark to the male vision.

The smallpox is declining, and the other evening the medical superintendent of a smallpox hospital—it may be as well not to particularize which—was heard bewailing the fact as interfering with his observations as to the excellence of the cold bath in lowering the pyrexia in this disease.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, FEBRUARY 22, 1877.

The PRESIDENT, DR. H. LENOX HODGE, in the chair.

An arm amputated after diffuse cellulitis. By Dr. W. W. KEEN.

M. C., æt. 53, Irishman, miner, blanched by thirty years of almost absolutely sunless life. In 1867 was struck on the left elbow by a piece of coal from a blast. This wound never healed. Anchylosis of the elbow resulted, and over the olecranon the bone was exposed on a level with the skin over a space about one-half inch in diameter. For six months there was considerable inflammation of the tissues of the arm and forearm, with abscesses. In December, 1875, the same arm was squeezed between a coal-wagon and a heavy timber. Diffuse inflammation soon followed, from the elbow down, with enormous swelling and abscesses everywhere. In this condition he entered St. Mary's Hospital, October 18, 1876. No dead bone, however, was detected on probing. Slight power of pronation existed, but no flexion. A short effort was made to save the limb, but, finding it of no avail, amputation, by two flaps, was done October 28, 1876, at the middle of the humerus. Esmarch's apparatus was used successfully, only the bandage and no tubing being used, after the plan suggested by myself. Three ligatures were applied. On the seventeenth and twentieth days two ligatures came away. The one on the brachial artery

resisted all proper force, and after forty days I attached to it a bag containing one ounce of shot, which brought it away in two days. He was discharged, well, December 9, 1876. On examining the elbow, entire bony anchylosis existed between the humerus and ulna, but the radio-humeral articulation was entirely healthy, apparently, from the slight pronation which was preserved. The exposed olecranon was not diseased beyond the exposure.

Post-sternal abscess. By Dr. W. W. KEEN.

J. G., æt. 35, baker, was admitted to St. Mary's Hospital July 11, 1876, under the care of Dr. S. H. Griffith, the attending physician. He had fever, anorexia, and sleeplessness, which persisted apparently without assignable cause. He complained of no pain in the chest. In about two weeks a swelling appeared at the right edge of the sternum at the second rib, not painful, but with only a sense of fulness. It was hard and small. After poulticing for ten days, fluctuation was evident, and it was opened. In the pus a wave was seen synchronous with the heart-impulse, showing some mediastinal connection, and the diagnosis of post-sternal abscess was made. His general condition at once improved in every respect, steadily though slowly, under good diet, tonics, and mild stimulation. Early in September he was walking out daily. The abscess had at first discharged freely, and had nearly filled up by granulations. About September 20 he took a long walk down town to get some clothes, and returned utterly exhausted. He went to bed, the fever returned, the granulations melted away, night-sweats set in, and his general condition was very bad. He came under my care October 7. I found his general condition as stated, temperature 102° to 105° morning and evening, pulse 120 to 140. At the junction of the manubrium and gladiolus, which were entirely separated about an inch from each other, was an oval opening two inches wide by one and a half inches perpendicularly and one and a half inches deep. At the bottom, which was a smooth membrane, the aortic pulsations could be both seen and felt. Exploration carefully made by the finger was not painful. The finger passed behind the sternum, and showed a cavity extending about an inch laterally beyond the opening, upwards to the top of the sternum and downwards to the ensiform cartilage. The tissues in front of the sternum were also detached from the bones. Both pieces of the sternum were carious, and small pieces of bone were constantly coming away. Both second ribs were detached, and could be seen and felt, the right one rather the better since the opening was slightly more to the right than to the left.

He was very feeble, and the prognosis was very bad. In spite of careful regulation of his diet, liberal stimulation, and the administration of tonics in full doses, he gradually failed, and died October 18. The local treatment was directed solely with a view to keep the parts clean and stimulate the granulations, but, except in the matter of cleanliness, it failed entirely to be of benefit.

The *post-mortem* examination revealed nothing worthy of note beyond the abscess described. The heart and pericardium were not diseased. The only assignable cause for the abscess was that in his occupation he constantly carried barrels of flour and ashes up and down, the edges of which he generally rested on his chest; yet he was never conscious of any injury received by so doing.

Carcinoma of stomach, causing constriction four inches above the pylorus, with corresponding constriction of transverse colon; scattered secondary growths in liver, omentum, and mesentery. By Dr. J. C. WILSON.

The specimens exhibited were taken from the body of P. F., a blacksmith, born in Ireland, who died at the age of sixty-two, in the Philadelphia Hospital, February 10, 1877. He was admitted to the ward five days before his death, but had previously, at long intervals, come under my observation at the out-patients' department of the Jefferson College. The following notes are condensed from the ward-record of the case:

Until seven years ago was a stout, healthy, hard-working man. At that date he began to be dyspeptic, and soon became so bad that he failed greatly in strength, and was obliged to give up work.

At first the symptoms were those of difficult digestion, with a sense of distress some time after taking food, occasionally vomiting, and constipation. Pain in the epigastric region soon began to trouble him. These symptoms grew gradually worse; he lost flesh, his skin became sallow, but remained free from actual jaundice during his attendance at the College as an out-patient, which continued until about a year before death. Liver-dulness was about normal, and no epigastric tumor could be felt. During the past year he was several times admitted to the Philadelphia Hospital, making short stays in the wards.

At the final admission he was very ill. Skin and conjunctivæ were of a deep orange-yellow hue. Emaciation was extreme. His belly was considerably distended; it was symmetrical in outline, and on examination this swelling was found to be chiefly due to fluid in the peritoneal cavity. There was also a good deal of tympany. On the most careful palpation in various attitudes, no distinct tumor could be felt, nothing more definite than an obscure sense of resistance to the right of the median line in the epigastrium. The liver-dulness in the mammary line began at the fifth rib, and reached a distance of three and a half inches. No tenderness in the hepatic region. The superficial veins of the abdomen were slightly enlarged, and filled from below.

There was faint pitting of the tissues around the ankles on pressure. Pulse, 100. No cardiac disease. Chest clear on percussion; no evidence of any intra-thoracic malady.

The tongue was coated with a pasty fur. There was no desire for food; liquid diet was vomited a short time after it was taken; no solid food was given whilst he was under observation. On one occasion a small quantity of blood was vomited. His bowels were once moved whilst he was in the ward; the character of the stool was not observed. He stated that constipation had been stubborn for a long time, and that the stools were light in color.

Pain was constant, often intense; it was referred to the gastric region, where also there was great tenderness on pressure.

Diagnosis.—Malignant disease of the stomach, with implication of the liver.

Post-mortem examination.—Brain not examined.

Nothing bearing on the case was discovered in the thoracic viscera, which, save a few points of aortic atheroma, were normal.

The abdomen contained several pints of fluid. Everything was stained deep-yellow.

The stomach was encircled by a mass of new tissue which was extremely dense and hard, bloodless, creaking under the knife, presenting in fact all the naked-eye appearances of scirrhus. This tumor implicated the wall of the viscus in the form of a ring, the thinnest part being on the posterior wall, the greatest mass in front and below where it crossed over to involve the transverse colon in its grasp, causing a similar but more marked stricture of that portion of the gut lying opposite the constriction of the stomach. This narrowing of the stomach was four inches above the pylorus, and its lumen was about equal to that of the pyloric outlet. In the neighborhood of the mass the gastric mucous membrane was softened but not ulcerated. The bulk of the tumor at this point was that of a small orange.

The transverse colon above the region of the constriction was greatly distended with flatus, and contained a small amount of fecal matter.

On the under surface of the liver, at the porta, was a smaller cancerous mass of the same appearance, and several similar tumors of small size were found in the interior of the organ. The liver weighed three pounds six ounces. Several nodules the size of chestnuts were in the great omentum and at various points in the mesentery, reaching down towards the small intestine, but not constricting it. No new growth of the cancerous kind was found in any other organ.

Dr. E. O. SHAKESPEARE, to whom these morbid growths were referred for a microscopic examination, said that sections were made from the hard, fibrous-like mass which bound the transverse colon to the greater curvature of the stomach, from a portion of the duodenum involved in a similar growth, from some small nodules found in the mesentery near the latter location, from the dense fibrous-like growth surrounding and obstructing the portal and biliary vessels and the hepatic artery at their entrance into the liver, and from some of the small white and consistent nodules which studded the parenchyma of the liver.

The sections were all stained with carmine, and examined in glycerin with a Hartnack No. 8 dry.

Those cut from the morbid point of the duodenum exhibited the usual structure of scirrhous cancer. The growth was confined mainly to the submucous tissue and to the muscular coat; it extended, however, for some distance into the mesentery at its point of attachment to the lesser curve of the intestine. Numbers of epithelioid cells with granular contents and large round nuclei, and often large nucleoli, were to be observed filling oval or somewhat lozenge-shaped alveoli, which were formed by the interlacing and frequent union of thick bands of fibrous trabeculæ. Within these trabeculæ, mainly over the position of the nodal points, small masses of flattened and proliferating cells were to be easily seen. The nuclei of the trabeculæ were all in a state of irritation. Within a few of the larger trabeculæ small blood-vessels could be seen. The cells of the mucous follicles adjacent to this morbid growth were in a state of irritation, but the glands had not encroached upon the submucous tissue, nor had they ulcerated. The sections from all the masses other than those present in the parenchyma of the liver offered similar pictures. It may, however, be stated that the cancerous growths around the vessels entering the liver appeared to start from the adventitious coat of those vessels, and to extend into the substance of this organ only along their course. The adventitious coat of the hepatic artery seemed to be the point of greatest activity. The muscular wall did not appear to be particularly touched; but the lumen of the vessel was somewhat narrowed by a growth of the endothelium. Indeed, this irritation of the endothelium was not limited to that portion of the artery which corresponded to the surrounding scirrhous mass at the entrance of the vessels, but it could be distinctly observed in sections of the liver itself, extending even to the finest ramifications of the artery.

Now we come upon the nodules which studded the parenchyma of the organ. The smallest of these were found to occupy positions with respect to the lobules corresponding to the position of the fine branches of the hepatic artery and portal vein and bile-ducts. It was still the tissue around the arterioles of the hepatic artery, and around the vessels and nerves running with it, from which the morbid growth in the parenchyma sprang. When

acini were destroyed the destruction began in portions bounded by the arterioles, and progressed radiating from that centre. Now, with respect to the character of these nodules. Where the arterioles were not utterly destroyed, a narrow cylinder of the tissue surrounding the vessel presented the alveolar structure and cell-heaps of cancer, and the proportion of the size of the fibrous trabeculæ to that of the enclosed cell-masses showed some predominance of that of the former over the latter. Hence I would decide that this wall area partakes more of the scirrhus. But outside of this small zone of scirrhus, which was not to be seen at all if the arteriole had undergone destruction, the alveoli quickly became round. The cells filling them were irregular in shape from pressure, were often polynucleated, and caudate. The fibrous trabeculæ limiting the alveoli were thin and nucleated, and bore only a very small proportion to the diameter of the alveoli. This zone should probably be designated as medullary carcinoma. Beyond it the cells and their relative arrangement gradually passed into the normal condition of the healthy glandular structure. Speaking in a general way, then, of the nodules which studded the liver, they were determined to possess the character of medullary cancer.

It should be stated that a portion of the hard mass in the walls of the stomach, including the mucous membrane, was also hardened for section, but could not afterwards be found.

Dr. HODGE said the time of the vomiting after eating was interesting in connection with the seat of the tumor. He had now a case under observation in which he could easily pass a bougie as far as the cardiac extremity of the stomach, but it does not enter the stomach. The patient vomits within a few minutes after taking food, and it was a question whether the obstruction is at the pylorus, the cardia, or between these points.

Dr. C. B. NANCREDE said it was an interesting fact in this specimen that where connective tissue is normally present in large amount, as in the stomach and mesentery, the secondary morbid growths are scirrhous; whereas in the liver, where the connective tissue is very sparse, we have encephaloid. Where the breast is removed for primary cancer, the secondary growth is usually much softer. This, Dr. Nancrede thought, is explained by the enormous quantity of connective tissue in the gland primarily, which is removed with it, leaving nothing but the subcutaneous connective tissue. There would therefore seem to be an anatomical reason for the secondary growths being softer than the primary. Where a small amount of connective tissue is present, the tendency is to medullary formations; where, on the other hand, this element is large, we have the scirrhous growths, or, at least, the harder forms of encephaloid.

Interstitial nephritis, in which there were marked retinal changes. By Dr. J. H. HUTCHINSON.

See Original Communication in the current number of the *Medical Times*.

Dr. JAMES TYSON said it was well known that retinal changes must frequently attend the cirrhotic form of chronic Bright's disease, but he had now under his care a case of chronic Bright's disease in the wards of the Philadelphia Hospital in which there are marked retinal changes, where there has been undoubtedly chronic catarrhal nephritis, although it is by no means impossible that there may now be secondary contraction of the organ, as the case is one of long duration.

Dr. OSGOOD said that Traube mentions having seen a case of the so-called amyloid degeneration of the kidneys complicated by retinitis, and quotes cases published by Wagner and others. In his case, Traube found hypertrophy of the left ventricle, and he not only asserts that there is no well-authenticated case on record in which retinitis co-attending amyloid or other disease of the kidney was not also accompanied by hypertrophy of the left ventricle, but insists that retinitis is essentially dependent upon the cardiac hypertrophy. Rosenstein, referring to Wagner's cases, remarks that in one of them there was no hypertrophy of the left ventricle. But Traube believes the latter condition was overlooked because slight in development, and says that Schweigger accounts for the exception by expressing the opinion that retinitis did not exist in all of Wagner's cases, for at the time of Wagner's first publication the later ophthalmoscopical and anatomical discoveries in retinitis were not known. Traube further says that Von Graefe has also confirmed the existence of hypertrophy of the left ventricle in all cases of retinitis attending nephritis which came under his notice, and that Von Graefe also saw cases of apoplexy of the retina (with formation of layers of fat) in which there was no affection of the kidneys, but always hypertrophy of the left ventricle.

Dr. HUTCHINSON did not wish to be understood as stating that these changes do not occur in other forms of Bright's disease, but as they are generally associated with the cirrhotic form, he thought that the use of the ophthalmoscope would often render the diagnosis much easier than it would otherwise be, as in the case reported by him this evening, where it had been made before any history could be obtained. He was aware, as had indeed been mentioned in his report, that the occurrence of the retinal changes was asserted by some observers to be a consequence of hypertrophy of the heart,—which is, as is well known, a frequent accompaniment of Bright's disease,—rather than of the Bright's disease itself; but it must not be forgotten that it is in the cirrhotic form that hypertrophy of the heart oftenest occurs.

Cases in which the retinal changes are marked are, however, Dr. H. went on to say, not often seen in the wards of a general hospital; they are more often met with at the clinics for diseases of the eye, the impairment of vision caused by them being generally the most prominent symptom. Indeed, such is the insidious manner of approach of the cirrhotic form of Bright's disease that it may be the only symptom which has attracted the patient's notice, as in a case which recently came under Dr. H.'s observation. The patient, an apparently healthy man of middle age, feeling perfectly well, scouted the idea of his being the subject of kidney-disease when it was suggested to him as possible. His urine, nevertheless, was found, upon examination, to contain albumen and casts, and he has since died in uræmic convulsions. On the other hand, although Dr. H. has examined ophthalmoscopically the eyes of every patient with albuminuria in his wards for several years past, he has found the retinal changes in only a few instances.

Dr. J. T. ESKRIDGE said that at the eye and ear clinic of the Philadelphia Dispensary a young lady had recently presented herself with marked retinitis albuminurica, easily recognized by all the assistants. On inquiry she said she had been treated for Bright's disease for three years.

Dr. TYSON remarked that occasionally we had an opposite result. A lad about 14 years old complained of his eyes, and consulted an eminent ophthalmologist of this city. The latter was struck with the condition of the eye-ground as that of retinitis albuminurica, and sent him to Dr. T. for an examination of his urine. The urine was examined, with negative results. Some weeks later a second examination was made, with a similar result. The boy continues well, and nearly two years have elapsed.

Heart, liver, and kidneys from a case of cardiac valvular disease. By Dr. F. P. HENRY.

L. W., æt. 14, printer, was admitted to the Episcopal Hospital on July 10, 1876, with acute articular rheumatism. He had had two previous attacks, involving nearly all the joints. When admitted, both knees and ankles were swollen, very painful, and red. On July 11 he was put upon the use of salicylic acid, gr. v every hour, and the joints were painted with tinct. iodine. On the evening of the same day he was almost free from pain. On the 12th he took thirty grains of the acid, when it was stopped, as the "cure was complete; swelling, pain, and stiffness having all vanished." On July 13 he was allowed to sit up, and on the 15th, it is stated, "he still continues in excellent condition." On the evening of the 15th he had a relapse, the knees and ankles being again attacked; this followed imprudent exposure to the air on one of the porches, where he had gone without permission. The treatment by salicylic acid was resumed, and the pain was almost immediately relieved. On the 17th he complained of severe pain over the cardiac region, with dyspnœa. A friction-sound was heard. Subsequently an endocardial murmur was detected; valve affected not stated. From this time on, the symptoms were those of gradually increasing disorder of the circulation.

The boy was in bed when I took charge of him on June 1, but was soon able to get up, and did so daily until about two weeks ago. He then took to bed again with symptoms of orthopnœa, sick stomach, and pain in right side. When I first saw him he was cyanosed, and his eyelids œdematous. The transverse area of cardiac dulness was increased, and the impulse was seen and felt over a wider extent than normal, being quite perceptible to both sight and touch in the epigastric region. The auscultatory signs were by no means so distinct as the very decided symptoms led one to expect. There were murmurs with both sounds, heard most distinctly at the apex; in the sitting posture the murmur corresponding in time with the second sound was only heard; standing developed the systolic murmur, which somewhat resembled a friction-sound. There was marked jugular, venous pulse. The boy died suddenly on Saturday morning, at 1 A.M.

Autopsy.—The *heart* weighed one pound nine ounces, and the pericardial layers were adherent. Both ventricular cavities were dilated, but especially the left; this condition decidedly predominating over hypertrophy. The aortic valves are thickened; their edges uneven and eroded; the portion that in healthy valves is found internal to the line of closure is gone. The left auriculo-ventricular orifice is dilated, and the mitral valves along the lines of closure are thickened and covered with minute "vegetations." The tricuspid present similar appearances in a minor degree.

The *lungs* were but slightly congested, and presented here and there a few stripes of pigment, but were far removed from the condition known as brown induration.

The *liver* weighed two pounds and three ounces, and presented the nutmeg appearance in a marked degree on section.

The *kidneys* weighed five ounces each. The relative amounts of cortical and medullary substance are about normal. These organs are paler and denser than usual. They are evidently fatty, and might, from the gross appearance, be supposed to be granular, but the microscope shows no development of intertubular connective tissue. I omitted to mention that the urine contained albumen, but was not examined for casts. The capsules of the kidney were in parts adherent, portions of the parenchyma coming away with them.

I believe that in this case the aortic valvular disease was primary. This led to hypertrophy,

followed by dilatation, which gradually increased, involving the left auriculo-ventricular orifice to such an extent as to cause mitral insufficiency. But for the dilated auricle, an aortic systolic murmur would doubtless have been detected; the sounds heard at the apex being those of aortic and mitral insufficiency.

The presence of a pathological condition of the liver due to great and long-continued venous congestion, in connection with mitral insufficiency, is of considerable interest; and especially when it is considered that the lungs, whose vascular system is in direct relation with the diseased valve, were scarcely congested. I submit the following explanation of the group of lesions, consisting of mitral disease and nutmeg liver, with but slight congestion of the lungs.

A certain amount of tricuspid insufficiency is considered normal by most physiologists since the time of Hunter, and is known as the safety-valve action of the heart. During sudden exertion more blood is returned to the right heart, through muscular pressure upon the veins, than can be propelled through the pulmonary circuit, and consequently at each ventricular contraction there is a regurgitation of blood, distending the veins and manifesting itself through the venous pulse. The lungs, as it were, refuse to receive more blood than can be aerated. The same condition may obtain in inflammatory affections of the lungs and in mitral insufficiency.

In the latter affection the lungs constantly approach a condition which normally obtains only during muscular exertion, and the safety-valve action is in continual operation. One result of this is hepatic congestion, which is conservative, a gland being less liable to be affected injuriously by congestion than a purely vital organ such as the lung, brain, or heart. It relieves itself through its secretion, or, as in the case of the liver, through its mingled secretion and excretion. It is congested physiologically at certain intervals, notably soon after eating, and therefore a pathological congestion may be invoked to explain the anorexia which is so frequent a symptom of cardiac disease. In healthy individuals, and especially in young persons, after sudden or even moderate exertion, such as rapid walking, a pain in the right side is frequently complained of. I consider this as due to hepatic congestion from the normal tricuspid insufficiency. It is more commonly observed soon after eating, when the liver is already congested. In the case of the boy L. W., there were complaints of pain over the right lobe of the liver; the same as would be due to muscular exertion. Indeed, the condition of a patient with marked cardiac valvular disease, even when at rest, so closely resembles that of a healthy individual making violent voluntary exertion, that it would be interesting to determine whether the same tissue-changes, as indicated especially by the urine, fæces, expired air, and perspiration, do not occur in both instances.

Enormous cystic kidneys: stricture of the urethra. By Dr. J. H. Brinton.

These two kidneys were taken from the body of a man aged 45. His history was as follows. He first contracted a gonorrhœa ten years ago, which was cured in about a month and a half. He again contracted a gonorrhœa a year and a half since, and again about July, 1876. In the last three months he had experienced great difficulty in passing his water, the stream gradually diminishing until it passed only in drops, and the effort of urination was accompanied always by severe straining and by much pain. In December, 1876, he was admitted into the Philadelphia Hospital, with symptoms amounting almost to retention. On examination two urethral strictures were detected, one situated about two and a half inches from the meatus, and the posterior one, which was very tight and firm, about five and a half inches from the orifice.

The anterior stricture was dilated without difficulty; the posterior one proved to be obstinate, and, although it could be passed, resisted to a marked degree instrumentation with catheters and sounds of a greater calibre than Nos. 3 and 4 of the English scales. By gentle manipulation it was, however, dilated so that Nos. 8 and 10 could be passed, but the passage of instruments was at times attended by decided evidences of urethral irritation. The urine was at different periods in his treatment examined, but no albumen or other abnormal constituents could be detected. During the early part of February vague symptoms of abdominal irritation occurred, accompanied by a persistent hiccough which defied all treatment. The man gradually became worse, œdema of the lungs supervened, and he died on the 18th of February.

On *post-mortem* examination the heart was found to be healthy, the lungs were both œdematous, and both kidneys were enormous and equally enlarged, and filled with multilocular cysts containing a limpid fluid. Each kidney, when placed in a jar, displaced about one hundred and fifty-six ounces of water. The ureters were normal, the walls of the bladder slightly thickened, and in the urethra the posterior stricture above described was found to be firm and impervious to the passage of a No. 9 sound; the anterior stricture was dilated; the prostate gland was normal.

The specimen was referred to the Committee on Morbid Growths.

Report of the Committee on Morbid Growths.

"The kidneys presented by Dr. Brinton and referred to the Committee on Morbid Growths show, microscopically, numerous large and small cysts containing a yellow semi-fluid substance. A thin section, by microscopic examination, exhibits the secreting structure of the kidney, which has not been

destroyed by the formation of the cysts, to be in an advanced stage of interstitial nephritis, the blood-vessels, uriniferous tubes, and Malpighian bodies being surrounded by a dense fibrillated tissue. The uriniferous tubules are in places completely obliterated; their lumen cannot be recognized, and the lining cells are in a state of fatty degeneration. A microscopic examination of the cysts shows their walls to consist of fibrous tissue, lined upon the inside by a flat epithelium; their contents consisted of large epithelial-like cells, irregular in shape, some measuring as much as $\frac{1}{200}$ of an inch, numerous pus-corpuscles, fat-globules, and granular débris. From which your committee consider the kidneys to be in a state of cystic degeneration, with secondary chronic interstitial nephritis.

"March 8, 1877."

REVIEWS AND BOOK NOTICES.

TABLES OF MATERIA MEDICA. By T. LAUDER BRUNTON, M.D. London: Smith, Elder & Co.

This book of about two hundred pages is simply a series of tables in which are given the drug, source, mode of preparation, properties, reactions, impurities, source of impurities, tests, action, use, dose, in the briefest possible manner. The making of the book must have involved a great deal of weary mechanical labor, and as "a companion to the Materia Medica Museum" it will save the student much toil. For solidity of work it well maintains the enviable reputation of its author. The fact that the preparations given are only those officinal in the English Pharmacopœia renders a revision of the tables imperative for the American student.

SCHEDLER'S MAP OF TURKEY AND GREECE.

This is a very good map of the seat of war, on rather remarkably good paper, and of sufficient size to allow marking of all the important points of the territories. We would advise those of our readers who peruse the daily papers to enclose twenty-five cents to the publisher, E. Steiger, 24 Frankfort Street, New York, asking for No. 2, cheap edition.

GLEANINGS FROM EXCHANGES.

TREATMENT OF HYDATID TUMORS OF THE LIVER (*The Lancet*, April 7, 1877).—Dr. Wadham, after reporting a case of double hydatid tumor of the liver, which was rapidly destroyed by paracentesis of each cyst and withdrawal of its fluid contents, proceeds to remark that the principal means suggested for the cure of these cysts were:—1. Simple acupuncture. 2. The electrolytic treatment (which consists in puncturing the cyst with two fine needles, attached, by means of metallic wires, to the negative pole of a galvanic battery, and applying over the integument in their neighborhood a moistened sponge connected with the positive pole). 3. Paracentesis, and withdrawal of the fluid contents of the cyst by some form of aspirator. 4. Puncture, with a view of allowing the cyst to be subsequently destroyed by suppuration. Of these methods he considered the last, in whatever way performed, needlessly painful, always tedious, and open to many sources of danger. Acupuncture and electrolysis, even if they could be relied upon, had also both of them the disadvantage of leaving for a long time in suspense the success or failure of the operation; the gradual dispersion of the tumor when so treated often occupying many months. If the cures following these forms of operation were, as he believed, simply due to the gradual escape of the fluid contents of the cysts into the cavity of the peritoneum, he considered that in paracentesis and withdrawal of the fluid by some form of aspirator we had a safer and a far more expeditious mode of treatment. This latter was, therefore, the operation for which he had a decided preference. The instrument which he had used, instead of any form of aspirator, was the same that he had frequently employed in cases of paracentesis of the chest. It was simply a double-action glass syringe, which admitted of the fluid being gradually withdrawn from the cyst without the admission into it of any air. It had, in his opinion, the advantage of allowing the operator to regulate, in a manner not possible with an aspirator, the amount of force employed in withdrawing the fluid, and enabling him to judge, by the resistance experienced, when the operation should cease.

LARYNGOTOMY IN CHLOROFORM ASPHYXIA (*The British Medical Journal*, February 3, 1877).—Mr. J. T. Clover reports a case in which during an operation for the removal of an epithelioma of the tongue, the patient being under the influence of chloroform, paralysis of the glottis and consequent asphyxia suddenly occurred. Drawing the tongue forward and making movements of artificial respiration produced no effect. The radial pulse could not be felt; and though at first the air passed through the larynx audibly, the sound soon became a short hiccough and then ceased. Laryngotomy was then immediately performed, artificial respiration continued, the operation completed, and the result was the entire recovery of the patient. Mr. Clover concludes his account of the case with the following remarks:

"Although it is certain that laryngotomy in this case was an important factor in the patient's recovery, and most probably an essential one, I should regret if this record were to

lead any one to open the larynx without *sufficient* necessity. I have never used the canula before, although it has been my companion at some thousands of anæsthetic cases; and I should never use it so long as air could be made to pass by artificial respiration through the glottis, or so long as the pulse could be felt. Whilst the circulation goes on, the patient will almost certainly gasp, and, in gasping, I believe the larynx opens sufficiently to make laryngotomy unnecessary; but when, under artificial respiratory movements of the thoracic walls, *glottidean respiration ceases and no pulse can be felt*, the prompt admission of air through an opening in the larynx, coupled, of course, with perseverance in the Silvester method, appears to me an imperative duty, especially as the operation is so exceedingly simple, free from risk, and cannot do any direct harm."

PAIN IN THE CHEST OF OBSCURE ORIGIN (*The Lancet*, March 31, 1877).—Dr. J. Sherwood Stocker calls attention to a series of cases, chiefly characterized by pain, either around one or both sides of the chest, or around the chest and down the arm, without any apparent cause.

After carefully eliminating all sources of error, as the possibility of pleurisy, herpes, aneurism, dyspepsia, and other disorders of the digestive organs likely to cause error in our diagnosis, it will generally be found that on one side of the upper dorsal vertebræ, near the exit of the spinal nerves, there is a spot exquisitely sensitive to pressure. In most cases, a simple blister applied over the painful part, with tonics given internally, will suffice to cure the invalid. In other cases, an opiate plaster, with a tonic, will be found to be the more appropriate remedy. In some of these cases a history of injury to the spine from a fall or blow of some kind will be traceable, though in some cases the cause has been so slight as to have escaped the patient's memory and the fact has had to be brought to his recollection by a friend. In other cases no history of such an accident can be obtained. These cases have nothing whatever to do with any functional disturbance of the uterus in females.

Another and somewhat similar class of cases is characterized by pain around the chest or down the arm, and functional disturbance of the heart's action. In these cases some tender spot may be detected at or near the same region of the spine previously mentioned; and also there may be a cicatrix at one extremity of the fingers from a former injury, such as a gunshot wound having implicated the cutaneous nerve. This was the case in an officer who consulted Dr. Stocker. Tonics and a sedative liniment cured him. The consideration of his case tends to confirm the opinion of the American surgeons from observations made during the late war,—that injuries causing irritation to the brachial plexus of nerves induced much more severe constitutional disturbance than the same amount of injury to the lower extremities.

NOTES AND QUERIES.

WE are requested to state that the Alumni Society Catalogue of all the graduates of the Medical Department of the University of Pennsylvania is now ready. It will contain about ten thousand names, and will make a book near the size of Hays's Journal. The price of it will be $1. For particulars or subscription apply to

HORACE Y. EVANS,
17th and Green Sts., Philada.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM MAY 20, 1877, TO JUNE 2, 1877, INCLUSIVE.

WOODHULL, A. A., SURGEON.—Assigned to duty at Alcatraz Island, California. S. O. 50, Division Pacific, and Department of California, May 14, 1877.

GREENLEAF, C. R., SURGEON.—Assigned to duty as Post Surgeon at Thomas Barracks, Huntsville, Alabama. S. O. 85, Department of the Gulf, May 25, 1877.

BROOKE, J., ASSISTANT-SURGEON.—Assignment to duty at Greenville, S.C., revoked, S. O. 94, Department of the South, May 18, 1877; and leave of absence extended thirty days. S. O. 98, Department of the South, May 23, 1877.

GARDNER, W. H., ASSISTANT-SURGEON.—Assignment to duty at Columbia, S.C., revoked. S. O. 94, c. s., Department of the South.

BENTLEY, E., ASSISTANT-SURGEON.—Assigned to duty at Little Rock Barracks, Arkansas. S. O. 76, Department of the Gulf, May 14, 1877.

HEIZMANN, C. L., ASSISTANT-SURGEON.—Assigned to duty at Fort Niagara, N.Y. S. O. 109, Division of the Atlantic, May 19, 1877.

MOFFATT, P., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Hamilton, N. Y. H. S. O. 112, Division of the Atlantic, May 23, 1877.

WOODRUFF, E., ASSISTANT-SURGEON.—Assigned to duty at Fort Davis, Texas. S. O. 88, Department of Texas, May 15, 1877.

KING, WM. H., ASSISTANT-SURGEON.—Assigned to duty at Fort Sully, D. T. S. O. 65, Department of Dakota, May 26, 1877.

COWDREY, S. G., ASSISTANT-SURGEON.—Assigned to duty at Mt. Vernon Barracks, Alabama. S. O. 80, c. s., Department of the Gulf.

DICKSON, J. M., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Jackson Barracks, Louisiana. S. O. 82, Department of the Gulf, May 22, 1877.

PRICE, C. E., ASSISTANT-SURGEON.—Assigned to duty at Camp Gaston, California. S. O. 50, c. s., Division Pacific, and Department of California.

BARNETT, R., ASSISTANT-SURGEON.—Assigned to duty with battalion Thirteenth Infantry, under command of Captain Clift, ordered to Lake Charles, Calcasieu Parish, Louisiana. S. O. 80, c. s., Department of the Gulf.

TORNEY, G. H., ASSISTANT-SURGEON.—Assigned to temporary duty at the Custom-House, New Orleans, Louisiana. S. O. 85, c. s., Department of the Gulf.

CRAMPTON, L. W., ASSISTANT-SURGEON.—To accompany battalion of Third Infantry to Holly Springs, Mississippi, and, upon arrival, assigned to duty as Post-Surgeon at that post. S. O. 87, c. s., Department of the Gulf.

TAYLOR, M. E., ASSISTANT-SURGEON.—To accompany battalion Thirteenth Infantry to Baton Rouge Barracks, Louisiana, and, on arrival, resume his duties as Post-Surgeon at that post. S. O. 82, c. s., Department of the Gulf.

SHUFELDT, R. W., ASSISTANT-SURGEON.—To proceed at once to Fort D. A. Russell, Wyoming Territory, for duty with companies of Fifth Cavalry, detailed for field service near Cantonment Reno, Wyoming Territory. S. O. 65, Department of the Platte, May 22, 1877.

PHILADELPHIA, JUNE 23, 1877.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON THE THERAPEUTIC USES OF JABORANDI.

BY JOHN M. KEATING, M.D.,

Visiting Physician to Philadelphia and St. Joseph's Hospitals, etc.; Lecturer on the Diseases of Children in the University of Pennsylvania.

ON several occasions I have called your attention to the therapeutic applications of a drug which has of late been used as a most valuable addition to our hospital pharmacopœia. I wish this morning to invite you to join with me in examining its virtues and in studying the indications for its use. In September, 1875, my attention was called by Dr. F. V. Green, U.S.N., to a preparation of jaborandi made by him from some leaves, the first introduced into this city, from Brazil. A series of experiments in the wards of St. Joseph's Hospital, at which I assisted, proved so satisfactory that Dr. Green brought their results directly to the notice of the profession in an exceedingly interesting article which appeared in the *Philadelphia Medical Times* of October 30 of that year. When I entered upon my term of service in the wards of this hospital in January, 1876, I immediately introduced the use of jaborandi, and since then my colleagues and myself have carefully studied its action and application.

For the purpose of giving you a clearer insight into its *modus operandi*, I bring before you this morning a case which we shall study together.

C. H. is 23 years of age, a native of this country. He says that he has always been tolerably healthy, but has been knocked about a great deal, having had no steady occupation. His mother died of dropsy, which was said to have resulted from Bright's disease. Three months ago, while dredging for oysters, and exposed to all grades of weather without protection, he began to suffer from pain in the small of the back, which was soon followed by general œdema. For two months he received little or no treatment, nor did he abandon his occupation during this time. He finally sought admittance to an almshouse, and thence drifted here.

When he entered the ward his condition was the following. He was very œdematous, the face resembling one with severe facial erysipelas in size, though pale and waxy in appearance; the feet and hands had lost almost all resemblance to their normal state. In addition to this there was ascites, and some œdematous râles were heard in the chest.

His urine was scanty, rather dark, and almost entirely albuminous. There were a few granular casts, but no blood-disks. f℥iv of the infusion, representing one drachm of jaborandi, was given him, but this was not absorbed, and in a few moments was vomited. I ordered him the same amount to be repeated, but in smaller quantities, often given, one ounce to be given every half-hour. About four minutes after the second dose, diaphoresis set in, and increased after each succeeding dose until it became very profuse.

The action of the drug was kept up for about three hours, and though the patient was extremely weak, which condition was somewhat increased by the sweating, he was much relieved, and remained comfortable for the rest of the day. Careful measurements of the body and limbs, taken before and after the action of the drug, showed a decided reduction in size: the abdomen lost two inches in circumference, the chest one and a half inches, the ankles each one and a half inches, the wrist one inch, the thighs and arms each one and a half inches. For some time after the sweating the urine was strikingly diminished in amount, and buchu was ordered in infusion to increase the flow. The stomach was rather irritable. In the course of a day or two the anasarca again returned, and the dyspnœa was so painful as to demand immediate relief. Erysipelas had started in the right parotid region, and was with great difficulty checked. The temperature on this day was 105⅘°, pulse 160. On account of the erysipelatous complications, the face was totally disfigured, the eyes entirely closed. A four-ounce infusion representing ℥ij of jaborandi was administered by enema. In less than ten minutes the patient was perspiring most profusely. The enema was rejected with an opening of the bowels about a half-hour after administration, but the effect of the drug continued for several hours. Thus given, the patient suffered no unpleasant effects whatever; there was no nausea and no depression. The greatest relief followed this dose of jaborandi, and up to the present time he has had only occasion to use it once, then a small quantity of the infusion by the mouth. But the urine was passed in by no means the quantity it should have been, and taking his general condition into account I ordered him a diuretic mixture of acetate of potassium and tincture of digitalis (♏v). He is now improving rapidly, the albumen has entirely disappeared, and the symptoms which resulted from excessive general œdema have disap-

peared with the cause. For the erysipelas I used a local application of one-half tinct. ferri chlor. and one-half glycerin.

I shall relate another case, which I select from many in which jaborandi has proved of great advantage:

A. B., a man aged 35 years, was brought to the hospital with this history. After exposure of some continuance he was seized with a dull, heavy pain in the loins, almost complete suppression of urine, great general dropsy, headache, and irritability of the stomach. The attack was an acute one; there was no hereditary history of Bright's disease, nor were there any evidences whatever of chronic kidney-disease. His appearance vouched for the truth of the history on his admission to the ward. He was enormously œdematous, was drowsy, and complained of headache. A small quantity of urine was withdrawn by catheter; it was rather light in color, almost all albumen, but under the microscope showed no casts nor blood-disks. His skin was dry and parched. A few hours after admission a dose of the infusion of jaborandi was given, two drachms of the leaves to four fluidounces of water, a tablespoonful ordered every half-hour until it had effect. The nausea prevented the retention of the drug. In the evening he had a violent uræmic convulsion, followed by another; and, as his bowels were costive, an active purge was given by the resident physician in charge. His stomach now became more settled, and the jaborandi was again given, this time with good effect; the sweating was profuse. Wet cups were placed over the loins, and large draughts of water with buchu infusion administered, also milk and beef-tea. The œdema rapidly decreased, and in a few days the man was in his normal state of health.

From these cases, which I have selected from a large number, we may gather the following truths:

Jaborandi is perfectly harmless in the dose which we are accustomed to administer. It is reliable; I have yet to see it fail where a good preparation is obtained. It is rarely followed by serious depression, and when such a result does follow the nausea seems to be the principal cause, or, I may say, its local action as an irritant to the gastric mucous membrane of which the nausea is the symptom. For this alcohol and opium give immediate relief. When given by enema the depression and nausea are both absent. It is at times a powerful sialagogue, but only when given by the mouth, as far as I know.

A small repeated dose will be equivalent to a large one once given, will be more satisfactory in its action, and better tolerated. It will not in any case increase the urine, but, on the contrary, tends to diminish it, and on this account a diuretic should be used always in conjunction with jaborandi in cases of Bright's disease. It will at the very first cause a slight rise in temperature, which, after the sweating stage, will be followed by a fall of but a degree or so; but this cannot be absolutely relied upon.

But let me give you some additional points of interest, which are supplied in the following history:

G. M. B, æt. 28. Admitted to the house with the usual history of exposure,—wet feet, sleeping out at night, etc. His troubles began six months ago with œdema, appearing first on the eyelids, and then on the face and legs. No history of bad hereditation. The œdema on the day of his admittance was very marked, and was general; the feet and face were the most puffy. The urine was very scanty, highly albuminous, no casts, no disks; it was light-colored; nausea.

Gave by hypodermic injection one-thirtieth of a grain of pilocarpin.* The temperature in the axilla was 100°. In the course of one hour and a half it fell three-fifths of a degree. There was no diaphoretic action. At this time one-twentieth of a grain was given in the same way, but without bringing on sweating. The temperature then was 99°. In an hour and a quarter after the second dose, one-fifth of a grain was injected. In about three minutes profuse perspiration came on, which lasted about twenty minutes; was not accompanied by any flow of saliva, nor did any unpleasant effects follow, except slight cutting pain in the bowels. When the sweating ceased the œdema had almost entirely disappeared. Diuretics re-established the renal secretion, and in a day the man was walking out.

From this you see we have in our control the values of this remedy in a concentrated form, which, judging from my experience, is safe and reliable.

I shall give you some statements from the experience of my assistant, Dr. Hull, resident physician, who, in order to test the effects on himself, took one scruple of the leaves in infusion.

"The first effect, which came on about eight minutes after drinking the infusion, and chewing and swallowing about one-half the leaves, was a profuse flow of saliva, which continued three hours. During this time at least thirty or forty ounces must

* Nitrate of pilocarpin, from a solution sent me by Messrs. McKelway & Borell, of this city, made by A. W. Serrard, of London.

have flowed. Following closely upon this was the diaphoretic effect, which was extremely profuse, the perspiration running off in drops and saturating everything. In about half an hour sudden and severe pain was experienced in the bladder, shooting down the urethra, and causing exclamations of pain. This was followed by cutting pain in the lower bowel, though there was no tendency to diarrhœa. It became so severe as to necessitate the use of an opium suppository, which afforded great relief. About this time (one hour after taking the drug) cardiac irregularity was noticed, with great weakness and rapidity of action, and a nervous, restless condition, with a constant yawning.

"There was gradually developed a dimness of vision, and soon surrounding objects beyond a couple of inches from the eye became indistinct. A watch held closely could be read with ease.

"This condition lasted several hours, when nausea came on, followed by severe vomiting, ejecting first the contents of the stomach, finally bile, and then passing off as a continued retching. The unpleasant effects were counteracted by the administration of whisky—about two drachms—in water, and I fell asleep to awake next morning in a weak, languid state, with excessive dryness of the mouth and continued thirst."

Is this valuable drug, then, only to be used in cases where œdema is to be gotten rid of? You will see at once that its value lies in its diaphoretic properties, and that the necessities for diaphoresis are the indications for its use. I will summarize the history of a case in which these indications existed.

A man entered my ward suffering from a violent attack of acute general articular rheumatism. Totally powerless from the universal joint-complications, with high temperature and much pain, some relief was demanded. Believing that the activity of the perspiratory glands was an effort to eliminate the morbid matter, whatever might be its nature, I was led to administer jaborandi in the usual manner. I may add that auscultation revealed the presence of a systolic soft heart-murmur at the base; and acute precordial pain, accompanied by a friction-sound, denoted a double cardiac complication. The very much increased sweating which followed the dose resulted in the complete alleviation of the pain in the joints for the time being, and the temperature, which was high at the time of administration, and had risen during the sweating stage, was lowered about a degree. There was no marked depression, though the heart-trouble rather made us fear such a result. The case was placed upon the usual treatment, and a daily administration of jaborandi, which he demanded, claiming from it great relief from pain, brought about convalescence. In a short time he fully recovered, with no permanent lesion of any sort.

In cases of rheumatic arthritis (acute), I have used it as a local application in the form of poultice, and the relief from pain was the uniform result. It seems to have the property of reducing local œdema by direct action on the sweat-glands where it is applied. In this manner it is used for the œdema of the feet in heart-troubles, and for a time is attended with success.

Acute bronchitis in the first stage has offered a field for its administration, and it has so far succeeded in giving the relief which the rationale of its action has led us to expect from it. I have used it in private practice for this purpose in lieu of the time-honored Dover's powder.

But I claim for jaborandi another property which I have fully convinced myself that it possesses, and which I believe is equal in importance to its diaphoretic action. Its physiological, or I may say toxic, action is borne by the sweat-glands, and probably through their activity its active principle is eliminated, when the dose is sufficient to stimulate these glands through the medium of their capillary circulation. In smaller doses it will simply act as an irritant to the capillary tubes, either on the vaso-motor system, or, I think more probably, through its direct influence as an irritant to the unstriped muscular fibre of the capillaries themselves. The reason I prefer this latter theory is because I have found its local application to be followed by local effects, limited to the part to which the poultice was applied. In small doses, then, it contracts or gives tone to capillaries, and resembles belladonna to a certain extent. In the night-sweats of phthisis, where the general systemic relaxation causes an exudation of the nutritious portion of the blood (called night-sweats), belladonna, or its active principle atropia, is our treasure. To avoid the dryness of the throat, which in some cases was quite annoying, and the other effects of belladonna, which were equally unpleasant, I was led to use jaborandi in small doses as a substitute. I

have found it to answer admirably, both in this hospital and in city practice, a teaspoonful of an infusion of one drachm to four fluidounces being all that is required, given at night. There are no unpleasant effects, and the number of cases which have used it with advantage warrant my recommending its trial to you.

I have given you the result of my own experience, and substantiated it by the recital of cases. I have avoided mentioning the experiments and trials of others; for these I refer you to the journals. I believe this drug to be most valuable, and I believe that the many unsuccessful trials which have discouraged so many have been caused by the unreliability of the preparations in the market. I would advise you to use the infusion of the leaves, which is now inexpensive, and which offers all the advantages claimed for more elaborate and costly preparations.

ORIGINAL COMMUNICATIONS.

BILIOUSNESS AND ITS MANAGEMENT.

BY J. MILNER FOTHERGILL, M.D. Edin., M.R.C.I. Lond.

THERE are few maladies which exercise more the mind of the patient, and are more interesting to the enthusiastic practitioner, than the functional disturbances of the liver, especially that commonly known as biliousness. It is not merely that with such persons many articles of food and drink are to be scrupulously avoided, or the penalty paid for indulgence in them in the shape of a bilious attack (it is not necessary to describe here a bilious attack; all are familiar with the combination of headache, depression, furred tongue, disturbance in the alimentary canal, and easily-ruffled temper, which in part or altogether go to make up this condition), but that they feel themselves more or less crippled in life by the time lost to them through their infirmity. They feel that if they could but be relieved from this infirmity, their working power as well as their comfort would be considerably and definitely increased. Nor is there much room for question that such would be the result. Much, however, can be done for such patients; and as the physiological action of the liver is being gradually better and better understood, and its working comprehended, the capacity of the practitioner to relieve the bilious patient is becoming distinctly greater and more effective. In order, however, to make the subject clearer to those who have not carefully followed the recent literature of the liver, it will be well to review the normal function of that organ. The recently published edition of Dr. Murchison's Lectures on the Diseases of the Liver, containing also his well-known Croonian Lectures on the Functional Derangements of the Liver, renders this a comparatively easy task to what it would have been but a very few years ago. Dr. Murchison has added considerably to this last section in this edition, not only as to the functions of the liver, but as to the causes of functional disturbance of it, the symptoms thereof, and the treatment of these conditions. Following then his account of the function of the liver, we find that it has three duties to perform: 1, to store up glycogen; 2, to destroy and break up waste albuminoid material; and 3, the secretion of bile. For a long time the two first actions were unknown, and even at present the second action is but imperfectly understood generally; and it was thought that the third and last was the sole function of the liver. No simile is perfect, but it may be stated that it would be nearly as accurate to say that the function of a fire is to make cinders. A fire does make cinders, but that is but a small portion of what it does; to convert fuel into heat is the real object for which it is used.

The first function is the storing up of glycogen, a substance which resembles dextrin (they each have a formula of $C^6H^{10}O^5$) in its chemical composition and reactions. It is also, like dextrin, capable of being converted into sugar by the action of albuminoid ferments. It is found in greatest abundance in the liver after meals, and is formed from the grape sugar into which starch and ordinary sugar are convertedby the action of the saliva and the pancreatic secretion. Such store of material in the liver is a sort of accumulated fund from which so much can be constantly given off for the wants of the system. It is like a reservoir, which catches the waters of floods and stores them so that they can be given off in certain quantities during rainless periods. So the liver enables man to eat at intervals, instead of having one steady

slow meal. But glycogen is not merely formed from saccharine material, it is found in animals fed exclusively upon flesh. The albuminoid materials of food are converted into peptones by the action of the gastric and pancreatic juices, and from these peptones the tissues of the body are built and repaired; while the surplus is broken up by the liver into glycogen, and leucin and tyrosin, both early forms of the retrograde metamorphosis of nitrogenized waste. The body is fed by glycogen, which is gradually given off by the liver. When glycogen is produced in excess, it seems to be converted into fat, a more permanent form of storage; and when the supply of glycogen is insufficient for the needs of the system, the body-fat is steadily drawn upon.

The second function of the liver—the destruction and breaking up of albuminoid matters—is a very important one. Not only are the superfluous peptones broken up in the liver, but the waste material of the blood and tissues is there disintegrated, and at least partially oxidized. In proof of this Dr. Murchison points to the facts: (1) that in functional disorder of the liver lithates are formed freely in the urine; and (2) that when a large portion of the liver is destroyed, as by cancer, for instance, the amount of urea is largely diminished. For further information on this and some other points the reader is referred to Dr. Murchison's book, as so much only is taken here as serves to illustrate the subject in hand. The liver is the organ chiefly concerned in the destructive metamorphosis of albuminoid matters, which, as uric acid and urea, are eliminated from the system by the kidneys, and to a lesser extent from the skin. This is a matter to be kept distinctly in view when laying down the dietary of bilious patients.

The third function of the liver is the secretion of bile. "The bile acids in human bile are two—glychocholic acid ($C^{26}H^{43}NO^{6}$) and taurocholic acid ($C^{26}H^{45}NO^{7}S$). Both acids are derivatives of albumen, and contain nitrogen; and taurocholic acid, to which the bitter taste of bile is due, contains all the sulphur of the bile." These bile acids are formed in and by the liver, so that in the bile are to be found the derivatives from the albuminoid food not to be obtained from saccharine or other merely hydrocarbonaceous food. This is a fact always to be remembered, as its practical bearing is most important. When the bile is poured into the intestines, much of it is reabsorbed, and goes round and round in the intestino-hepatic circulation. There is every reason to hold that it is this circulation of bile in excess which is an essential factor in the production of the state known as biliousness. Bile performs several useful functions. It assists in the absorption of fat, and possibly of the albuminoid constituents of food. It also is a stimulus to the peristaltic action of the bowel, and prevents decomposition in the bowels. Thus bile has its uses, even that portion of it which is being cast out of the bowel as excrementitious.

This brief consideration of the functions of the liver will serve to demonstrate what an important organ it is, and with how many forms of disease or disorder it is associated. It is obvious that diabetes is essentially a disease of the liver, rather than of anything else, and may be caused variously and notably from prolonged anxiety and brain-overwork affecting the glycogenic processes. But with this subject we are not engaged at present; suffice it to say that Garned has observed that gout and diabetes are found to alternate in the same individual,—a statement I can corroborate. It would seem that when the hydrocarbonaceous material escapes unoxidized, the oxidation of other material is more complete, and so there are no lithates, though the urine may and usually does contain a large amount of urea. This is all that may be said about the relations of the liver to diabetes here. Then in consequence of its second action, the disintegration of albuminoid materials, the disturbances of the liver are most important. When an excess of food is taken, so that the respired oxygen is insufficient for the proper oxidation and disintegration of the assimilated material, then it is said "the liver is at fault." This is rather severe upon the liver, which may be doing its work honestly to the best of its ability, and not at all inefficiently, but its capacities are overtaxed by too great indulgence of the palate. The liver has a great deal more given it to do than it can perform efficiently. As long as the amount of food taken and assimilated is at all in reasonable proportion to the needs of the organism, the liver can get through its duties efficiently enough. But if a large quantity of rich food, highly hydrocarbonaceous, be

eaten and assimilated, as well as a large amount of albuminoid matters, it is certain that the respired oxygen is insufficient for the oxidation of all the material, and the least readily oxidizable matters come off worst. These, as Liebig pointed out, are those materials of aliment which contain nitrogen, a substance which renders all matter with which it is in combination difficult of oxidation. Consequently there is an attack of biliousness,—in this case really a surfeit,—with the appearance of the imperfectly oxidized nitrogenized waste as lithates in the urine. If the albuminoid food had not been accompanied by a large amount of the more readily oxidizable hydrocarbons, the liver might have been able to deal more effectively with these nitrogenized matters. But, as it is, something must be left unoxidized, and this is the nitrogenized food,—that which furnishes the lithates and the bile acids. It is somewhat surprising that the chemical composition of these bile acids has not put the physician sooner on the right, or what I suppose to be the right, track or line of treatment of biliary disturbances. Even Dr. Murchison does not seem to grasp these bearings as clearly as it might have been expected he would. These bile acids, as much as urea and uric acid, are the products of the retrograde metamorphosis of albuminoid and fibrinous material, and cannot be furnished by a non-nitrogenized dietary.

It may be possible to make bricks without straw, but they cannot be made without clay; and it is no more possible to be bilious on a non-nitrogenized dietary than it is to be gouty on a like dietary. This is a general statement, which, however, needs a little qualification. There are those who are naturally bilious, as there are those who are naturally gouty, and with these persons the slightest excess, which other persons would never feel, disturbs the eliminating processes. But as a broad statement it is quite true. It is equally true that the bilious attack is closely and causally associated with the taking of some rich saccharine or oleaginous food, and is said to be due thereto, but it is only indirectly so due. The biliary disturbance is brought about by the hydrocarbons combining with the oxygen in the body, and so leaving the albuminoid matters unoxidized. But the bile acids are not furnished directly by the hydrocarbons. If those hydrocarbons had been taken alone the question might be raised as to whether the bilious attack would or indeed could have followed.

From this consideration of the production of an ordinary bilious attack in a fairly healthy person, it is comparatively easy to proceed to the consideration of the production of allied bilious attacks in those who are abnormally liable to them. Dr. Murchison throws out the thoughtful suggestion that "most people have more liver, just as they have more lung, than is absolutely necessary for the due performance of its function. But in others, not unfrequently the offspring of gouty parents, the organ in its natural condition seems only just capable of performing its healthy functions under the most favorable circumstances, and functional derangement is at once induced by articles of diet which most persons digest with facility." It might perhaps have been better put "by an amount of food which most persons can dispose of with facility." In those people with livers which, if not abnormally small in size, are of limited functional power, bilious disturbances are readily produced, just as they are in persons whose livers are crippled by organic disease. It is the same with the kidneys. Some hereditarily gouty persons seem to possess kidneys of low functional capacity, so that they are rendered gouty,—that is, have attacks of gout in some form induced by a slight indulgence which most persons could undergo with impunity. Their kidneys seem congenitally imperfect, and to resemble the kidneys of other persons when more or less crippled by disease. In persons possessing these defective organs of low functional capacity, disturbances of health are produced by slight causes, such as in other persons whose organs possess some spare power would never be felt to perturb the body-equilibrium; with these bilious persons, then, what has been above described as the consequence of a surfeit is readily induced by the slightest excess of food.

Biliousness may take one of two directions. In some persons there is the regular bilious attack,—headache, furred tongue, disturbance of the alimentary canal, vitiated stools, and fulness over the hepatic region, the urine being merely high-colored. In others again there is rather a dyspeptic condition, with the appearance of lithates in the water, especially about

two or three hours after a meal. There is no essential difference betwixt the two; in each there is defective oxidation. But in the one the bile acids seem to preponderate, while in the other the urinary products of nitrogenized waste take the leading place. The first is rather the condition of the congenitally bilious, the latter of the congenitally gouty. The latter, too, is the more commonly acquired form of disorder, and is probably of the two the one more readily amenable to treatment. But the latter is just as much the result of defective action in the liver as is the former. The kidneys may be doing their duty well, indeed be unusually active, as evidenced by the amount of lithates in the urine, but the liver is acting imperfectly, and so the nitrogenized waste matters are but partially oxidized. It is just like the dyspepsia connected with bad teeth. The stomach may be quite equal to its duties, but it cannot compensate for the imperfect mastication, and so painful and impaired digestion is the consequence. Our forefathers knew well enough that when the urine was laden with lithates the liver was at fault, though from the imperfect state of their physiological knowledge they could not explain the how and why.

The next matter is to see what bearing the details given above have upon the right treatment of conditions of biliousness. I am of opinion that they throw a whole flood of light upon the treatment both dietetic and medicinal. They lead to conclusions somewhat different from what are generally held, especially about the ordinary bilious attack,—that is, where the bile acids are the chief matter. It has been held and is yet too much held in reference to these persons, that "As a rule those articles of diet are most apt to disagree which contain much saccharine or oleaginous matter, and not, as might perhaps have been expected, nitrogenous food, plainly cooked." On this matter I am at issue with Dr. Murchison. I have seen bilious individuals who asserted that they could only take a little lean meat, bread, and tea, getting no better, but worse, on this dietary, who were all the better for a dietary exclusively hydrocarbonaceous. Of course they commenced with the full expectation of being much worse, but were agreeably surprised to find themselves better. In reality these people had worked in a wrong direction, and took the things they should have avoided, and avoided the things they should have taken. Of course it is true that any indulgence in saccharine or oleaginous food in addition to their ordinary fare made them worse; but how that is brought about has been explained above. They never tried doing without their albuminoid food, and that is the point. As a matter of fact, a non-nitrogenized dietary, with the production of liquid stools in the morning by the use of alkaline-saline purgatives, is the line of treatment which gives them most relief. If the wonted dose of the purgative fails to produce free evacuations, the patient does not feel so well that day; when the evacuations are more profuse the patient feels better.

The association of lithates with nitrogenized food is well known, and usually persons who are troubled with lithates or with gravel avoid such food, or take it in limited quantities. Those, however, who do not possess this information pursue their meat dietary until the association is pointed out to them by their medical advisers. A change of dietary is quickly followed by the desired results in the large majority of cases. In both forms of biliousness the dietary should largely consist of farinaceous materials, fruits, fats, and fish or fowls. John Henry Bennett, in his excellent work on "Nutrition in Health and Disease,"—a work which should be read by all sufferers from dyspepsia and biliousness, especially that form associated with deposits of lithates,—points out how the flesh of fish or fowls is more easily assimilated than those forms of meat usually called "brown meats." Of course the flesh of fish and fowls contains nitrogen, and so is more or less objectionable; but these forms of flesh, as Bennett shows, are more easily digestible, which is one matter; and the fish at least contains a smaller amount of nitrogen in proportion to bulk, which is another matter. But even of them the amount must be limited in the case of many patients.

The association betwixt the function of the liver as a disintegrating or oxidizing organ and the disorders of tropical temperatures is now quite intelligible. Where the high surrounding temperature renders the necessity for food to meet the body-wants but small, and the body-combustion is less than in cooler areas, it is clear that only small quantities of food are really required. If then the habits of temperate

zones be carried to tropical climates, and the taste for food maintained by giving to it greater attractiveness by piquant sauces and tasty adjuncts, then it is clear that the duties of the liver will be largely increased. No wonder, then, that so many persons who have resided in warm climates suffer from biliary disorder, and become the subjects of organic disease of the liver. Specially is this the case where the food has consisted largely of highly-seasoned dishes, notoriously bad for those who are liable to biliary disorder, and been accompanied by draughts of alcoholic beverages of various kinds. Where such a dietary is indulged in, even those who possess livers of high functional power, with a quantity of spare liver indeed, must sooner or later feel the effects; but for those whose livers are but barely equal to their needs on the most restricted dietary it is clear that great disorder will soon be induced. And again the subject of indulgence in nitrogenized food crops up. If in the tropics fruit, vegetables, oil, and other hydrocarbonaceous food alone be taken, the liver is not so disordered as when meat is added. It is the second function of the liver which is so serious a matter in hot climates, and there and elsewhere it is certain that the best way to give physiological rest to a disturbed liver is to relieve it as far as possible from the labor of disintegrating albuminoid matter. It apparently taxes the liver little to store up glycogen and to give it out again; but the breaking up of nitrogenized bodies is the labor which tests it most severely. In tropical climates, then, hydrocarbonaceous food should form the staple of diet, and that, too, only in stinted quantities by those whose livers are unequal to high functional activity.

Closely allied to this side of the subject is the question of food-supplies of oxygen.

Biliousness is rather a malady of sedentary life than of open-air life. The hunter, the sportsman, and the farmer rarely suffer from biliousness as do those who lead a quiet or in-door existence. This is quite intelligible, and the necessity for exercise and free supplies of fresh air to those who suffer from biliary disorders is apparent enough. The amount of food that is required and which may be eaten with impunity in very cold weather, tells how much the functions of the liver are connected with the oxidizing processes.

Before leaving the subject of the dietary, a word or two is necessary about the idiosyncrasies of individuals. With some, certain foods will more readily produce biliary disorder than other forms of food. Apparently the liver of one individual can more easily break up the peptones of one form of food; that of another some other form of food. The different effects of wines, however, are much more remarkable and pronounced: with one, port wine is the fluid he must avoid; one single glass of port will produce a bilious attack which might have been averted by avoiding port wine. In another, one glass of champagne will work mischief, but other wines may be taken with impunity. At present no solution of these peculiarities is forthcoming; but, as they are facts, the bilious person will do well to note what wine or other alcoholic fluid disturbs him, and to avoid the obnoxious liquid.

The medicinal treatment of biliary disorders next claims our attention. And it may be well to consider first that form of malady known as a bilious attack, and to which dark-complexioned persons of the biliary diathesis are most subject. Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates, the condition Dr. Murchison calls lithæmia, persons of other diathesis seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis, nothing is so good as alkaline saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions,—the more copious the better,—the bilious person feels pretty equal to the day's work before him. Rochelle salts with a little sulphate of magnesium in infusion of buchu forms a most excellent morning purge, in my experience. Sir Joseph Fayrer has found in his Indian experience sulphate of magnesium, with quinine or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion. Even with miserable anæmic individuals such

purgation is necessary, and must precede all attempts to give chalybeates. Bilious persons somehow do not do well with iron. Iron may improve the oxidizing processes in persons ordinarily, but it does not suit persons laboring under biliary disorder, and Sir Joseph Fayrer found it did harm rather than good to anæmic subjects until the purgative plan had been thoroughly followed out, and the liver unloaded, as it is said. Even then purgation is to be maintained to a moderate extent. As long as there is a bitter taste—probably due to taurocholic acid—in the mouth in a morning, the purgation must be continued.

A very important matter in the treatment of biliousness is the question of the administration of mercury. In an ordinary bilious attack a mercurial pill is almost essential, and often free purgation without a mercurial leaves the condition unrelieved until a mercurial is given, when all goes well. This fact is well known clinically. The apparent conflict betwixt this fact and the results of experimentation—that mercury reduces the secretion of bile by the liver—has troubled many persons, but really there is no difficulty in the matter. Mercury sweeps away the bile in the upper bowel, and so brings away bilious stools, especially when an excess of bile is circulating in the intestino-hepatic circulation. Such an action reduced the amount of bile passing out of the gall-duct in animals experimented upon, because it removed the excess of bile going round and round, and thus, apparently, checked the secretion of bile by the liver. Mercury is then a true cholagogue, and its threatened deposition is now averted. Dr. Murchison thinks, too, that mercury has an action in inducing disintegration in the liver, as it helps to remove growths, notably syphilitic gummata and effused fibrin, by rendering the material more easily taken up by the lymphatics. This is a very ingenious suggestion. Certain it is that mercury gives great aid to a liver which is in difficulties, and it is equally certain that if persons who suffer from biliary troubles take, or have taken, mercury freely it is impossible to treat them without a little of that agent. It is well, though, to keep the amount low, and to give a pill containing a little mercury at bedtime, and follow it up with an alkaline-saline purge in the morning. It is pretty apparent from clinical observation that mercury is rather indicated when there is an excess of bile acids present. In cases where there is abundance of lithates it does less good, and is apt to do harm if the kidneys are not in their integrity. It is not unimportant to remember this. In all forms of biliousness, too, there is defective oxidation, and mercury and alkaline-salines are often more useful even to patients suffering from coexistent debility and anæmia than mineral acids and quinine, "the strength, flesh, and color returning under what at first sight might have appeared a lowering treatment." Here I entirely agree with Dr. Murchison, and even after mineral acids and tonics are admissible it is well to maintain the morning purgation. Iron rarely suits these patients, and should be withheld until the liver is once more acting efficiently and has thoroughly recovered its tone. Perhaps of all tonic agents strychnine is the one best adapted to the bilious. It greatly relieves the depression, and it is well to combine it with the nitro-hydrochloric acid.

Such is the treatment best adapted to the bilious attack where the bile acids are the chief cause of disturbance. Some modification is required in the other forms, where there is more or less persistent dyspepsia, with a large quantity of lithates in the water, especially about two or three hours after a meal. This is a malady of middle age and advanced life rather than of youth. Hard-worked business men are apt to acquire this affection, especially when they feel their work taxing them, and so eat quantities of meat to keep them up. They do not get much exercise, and so the oxidizing processes are defective. In such cases this condition is persistent. At other times it may be temporary, as the result of a good dinner. In the latter case a purgative pill at bedtime, in some cases all the more effective for containing a little mercury (but it is not so essential here as in the form just described), and a good Seidlitz powder in the morning are all that is required. Perhaps it is as well to live abstemiously for a day or two after. But when this condition threatens to become chronic, much more is required. It is very common in such sufferers to find reasons to suspect that the kidneys are not quite in their integrity,—a matter which bears on the treatment, and renders the avoidance of much albuminoid food of the first importance. With such patients it is necessary to commence by limiting their nitrogenized food,

and to take to the dietary mentioned above. Sometimes patients object to this dietary, alleging that it will lower them too much, but their objections must be quietly overridden. They soon find out for themselves how much better they are for it, and then willingly continue it. Farinaceous food, fruit, fish, fat in some of its forms but not in too great quantity, and fowls or game in limited quantities, must form the dietary. They want glycogen furnished to them with a minimum of albuminoid matters, as the waste of these materials is the source of their troubles. Then, having fixed the dietary, it is well to give them alkalies in vegetable tonics. Citrate or bicarbonate of potassium or the potassio-tartrate of sodium, with some tincture of nux vomica in an infusion of buchu or gentian, is my favorite formula. It is well to act on the bowels by the resort to a vegetable pill at bedtime, or to some Friedrichshall, Püllna, or Hunyadi Janos water on getting out of bed in the mornings, so as to keep the portal system unloaded. This relief of the portal circulation by purgation is of service in enabling the liver to perform its work more efficiently. But in this state mercurials are not indicated, and are apt to disagree and do positive harm. Especially is this the case where the kidneys are involved. Mercury is largely given out by the urine, and when the kidneys are the seat of disease even small doses of mercury will often give rise to unpleasant consequences. This plan of giving alkalies and purgatives together soon procures decided amendment, combined with the regulated dietary. When the patient's tongue is persistently clean, then, and not till then, may a little iron be added if there is anæmia. But iron should be withheld until the tongue is clean and the urine clear continuously; if given before, it only disagrees. When permissible, it may be added to the mixture, as pot. bicarb., gr. x; fer. am. cit., gr. v; tinct. nuc. vom., gr. x; inf. buchu aut quassiæ, ℥i, ter in die before food, and washed down with a tumblerful of water, or it may be given in full with a little quinine after food. In some cases cod-liver oil is very useful, and its addition agrees well with the patient. In all cases fresh air and exercise should be conjoined with the above measures. If the patient be mentally overworked, he should go away for a while to some place where he can be amused without being tired. Such patients, even when not under the doctor's hands, should avoid brown meats, and should take alkaline waters of the Vals, Vichy, Marienbad, Carlsbad, or Congress Springs character, as beverages to their wine or spirits, and should also have some saline purgative water every other morning. But everywhere and ever they must remember to limit their waste nitrogenized matters by a suitable dietary; without that, all remedial measures are but palliative: they cannot be curative.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. AGNEW.

Reported by H. R. Wharton, M.D.

REMOVAL OF RECTUM FOR EPITHELIOMA—DEATH FROM PYÆMIA.

APRIL 18, 1877.—Ellen F. presents herself at the clinic to-day, stating that about eight months ago she began to notice pain and difficulty at stool. This has gradually increased, and has been accompanied with excruciating pain, which she can only compare to the touch of a red-hot iron.

Upon examination I find a small ulcerated mass about the size of a cherry protruding from the anus. On introducing my finger into the rectum I find that it is almost occluded by a dense mass of granulation-tissue which occupies the lower two and a half inches of the rectum. On vaginal examination the posterior wall of the vagina is found slightly indurated.

From the history of the case, the appearance and progress of the disease, I conclude that it is an epithelioma of the rectum.

What can be done for the relief of this patient? This is a form of cancer which runs its course with great rapidity, so that an operation, if advisable, should be done at once.

Removal of the involved portion of the rectum in these cases is sometimes followed by great relief; but the advisability of the operation depends much upon the condition of the patient, the position of the disease, and the amount to which it has involved contiguous structures.

If situated in the lower part of the rectum, so that the dissection for its removal has not to be carried too near the re-

flexion of the peritoneum, if it is limited to the walls of the rectum, and the patient's life is rendered miserable by the intense pain which accompanies it, then I think its removal is justifiable as a palliative operation, and promises the patient the only chance of relief. In the case before us we have very much these conditions, except that there is a slight involvement of the posterior wall of the vagina. Her bowels having been previously opened, she will be etherized.

Being ready for the operation, she will be brought to the edge of the table, her legs supported by an assistant on either side. I shall make my first incision from the anus to the coccyx; my second incision will be made from the anus to the vagina, in the median line of the perineum; these two incisions being connected by semicircular incisions following the verge of the anus on each side, the skin being reflected.

The bowel is then enucleated by working up in the connective tissue around the rectum, using the handle of the scalpel and finger, except where the tissues are too dense. The vessels, which are very numerous, are tied as they spring.

I now remove the diseased portion of the vagina, and, having reached healthy tissue in the rectum, I bring it down and remove it.

The perineum and posterior incision being brought together by sutures, I shall stitch the edges of the bowel to the reflected skin. The ligatures, about thirty in number, will be brought out of the posterior portion of the wound.

The amount of blood lost has been less than that from the amputation of a limb.

A dressing of lint saturated with carbolized oil will now be applied, and as soon as she reacts from the ether she will be given opium enough to relieve her pain and keep her bowels quiet. Patient reacted well from ether, and has very little pain.

Evening.—Temp. 103°; P. 128.

April 19, morning.—Temp. 99.3°; P. 102. Patient states that she experiences great relief; takes nourishment well; rested well during night.

Evening.—Temp. 101.1°; P. 116.

April 20, morning.—Temp. 98°; P. 102. Doing well; wound dressed with carbolized oil; free discharge of pus; taking a small amount of opium to keep the bowels quiet.

Evening.—Temp. 100°; P. 108.

April 21, morning.—Temp. 98.4°; P. 108. Complains of slight pain in abdomen; had a chill, and temperature ran up to 102.2°; P. 120. Poultice applied to belly; given quinine and stimulants.

April 23, morning.—Temp. 102.3°; P. 116. Has marked symptoms of septic poisoning; tongue heavily coated; pulse gaseous; wrists swollen and painful; left leg very much swollen, presenting all the appearances of phlegmasia dolens; taking quinine and stimulants; bowels moved by ol. ricini.

April 25, morning.—Temp. 103.4°; P. 136. No change in symptoms; patient not able to take nourishment or medicine; temperature at 12 o'clock was 106°. After this patient sank rapidly, and died at 1 P.M.

No post-mortem examination was made.

TRANSLATIONS.

A Convenient Method of applying Croton Oil to the Skin.—M. Ladriet de la Charrière recommends the following formula:

℞ Ol. theobromæ, 1 part;
Cera alba, 1 part;
Ol. Tiglii, 2 parts.

These ingredients are to be mixed together and moulded in the form of crayons, which may be preserved in tin foil. The oil thus prepared may be used in the treatment of tinea tonsurans or in other affections where the influence of croton oil is to be exercised over a limited area.

Venous Pulse in Chloroform Narcosis.—According to Noël (*Bull. de l'Acad. Roy. de Belg.*, t. x. No. 8), venous pulse appears in something more than one-half the cases during awakening from chloroform narcosis. It usually makes its appearance in the jugular and subclavian veins, and occasionally also in the facial. The pulsations are isochronous with the radial pulse; palpation gives only a slight impression; the pulsations diminish in the external jugular veins on compression of the vein at the base of the neck. The pulsations become stronger when pressure is exercised upon the vein in the upper part of the neck. This symptom, which is so interesting and practical in connection with the influence of chloroform upon the heart, is explained by Noël as dependent upon defective closure of the right auriculo-ventricular valve during the systole which

occurs under the influence of the cardiac weakness brought on in the course of chloroform narcosis. x.

Extraction of Foreign Bodies from the Œsophagus in Children. — Dr. Thouvenin (*Bull. Gén. de Thérap.*, 1877, p. 226) lays the child face downwards on a table, with its head projecting over the edge and sustained by an assistant. Then, the finger being introduced to depress the tongue, the coin or whatever it may be glides along the finger of the operator, and falls to the ground. x.

Hypodermic Injections of Chloride of Pilocarpin (*Bull. Gén. de Thérap.*, 1877, p. 226).—Among the inconveniences accompanying the use of jaborandi, vomiting is most annoying, the medicine being thrown up very frequently before its influence begins to be shown on the salivary or sudoriferous glands. Dr. Ortille suggests the hypodermic use of chloride of pilocarpin in the dose of .025 grm. (one-third grain) to .03 grm. (one-half grain) in grm. i (℥ xv) of distilled water. Dr. O. has invariably obtained prompt salivation and abundant diaphoresis by this means without any inflammation having followed at the point of injection. x.

Formulæ for the Administration of Salicylic Acid (*La France Méd.*, 1876, No. 86).—

℞ Acid. salicylic., ʒi;
Ammon. citrat., ʒss;
Spirit. vini gallici, fʒj;
Aquæ destillat., ad fʒvj.—M.

A tablespoon contains five grains of the acid.

℞ Acid. salicylic., gr. 75;
Potass. bicarb., gr. 50;
Mucilag. acaciæ, fʒviij.—M.

Sig.—Tablespoonful.

For external use:

℞ Acid. salicylic., ʒi ad ʒiiss;
Sodii borat., ʒii;
Aquæ, fʒii.—M. x.

Anæsthesia produced by a Hypodermic Injection of Bromhydrate of Quinine.—M. Thaon, of Nice (*Le Mouvement Méd.*, 1877, p. 153), had under his care a case of intermittent fever which resisted the administration of bromhydrate of quinine administered by the stomach, and also hypodermically, ten to fifteen grains of the salt being given daily for some days without having mastered the fever. One of the punctures of the hypodermic needle, however, which had been made into the forearm in the region of one of the ante-brachial branches of the musculo-cutaneous nerve, caused complete anæsthesia of the skin over a belt twelve centimetres (four inches) long by six centimetres broad. Thermo-anæsthesia extended a little farther. One month subsequently this anæsthesia remained persistent. x.

Changes in the Medulla Ossium in Pernicious Anæmia.—In a letter to Virchow (*Archiv*, Bd. 68, Heft. 2), Cohnheim speaks of a case of pernicious anæmia observed in the Breslau Clinic, in which, besides the usual alterations in other organs, the marrow of all the bones showed peculiar macroscopic and microscopic changes.

It was intensely red. The microscope showed almost total absence of fat-cells; presence (1) of colorless cells—the so-called marrow-cells, many looking like lymph-corpuscles, mostly relatively large, with one or two large nuclei, of an epithelial appearance; (2) of a similar number of colored elements, among which appeared many red nucleated cells whose nuclei were colored to the same degree as their body. Granular red blood-corpuscles were found in the blood at the post-mortem examination, although during life examinations of the blood failed to show these even a week before death.

The fact of finding these elements in the marrow appears to show the importance of this portion of the human system in disease. x.

Timbo (*Paullinia sorbilis*).—M. Stanislas Martin contributes a brief description of this plant to the *Bulletin Gén. de Thérap.*, No. 6, 1877.

M. Martin's remarks concern for the most part the botanical properties of the plant, and are accompanied with two plates illustrative of the leaves and fruit, and the microscopic appearances of the plant-structure. As a result of his experiments M. Martin has succeeded in isolating—1, an alkaloid to which he gives the name of *timbonine;* 2, starch; 3, a resin; 4, an essential oil; 5, chlorophyll; 6, tannin; 7, an organic acid; 8, traces of glucose.

By treating the finely-powdered timbo at first with sulphuret of carbon, the extraction of the alkaloid is facilitated as well as that of the other principal constituents. The sulphate of timbonine crystallizes in needles; it is white in color; the small quantity thus far obtained has not permitted of any experiments upon animals. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 23, 1877.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

A SUFFICIENTLY full report of the late meeting of the American Medical Association will be found in another column. It will be seen that the attendance was very large, and the proceedings harmonious. Several visiting physicians from Canada added to the occasion by their presence. This is as it should be, but we think the Association was eminently wise in refusing to amalgamate with the similar body in Canada. Habits, interests, modes of education and of thought are still sufficiently diverse in the two countries to prevent complete fraternization, though not distinct enough to add other than zest to habitual intercourse.

The distinguished president was prevented by his lack of voice from doing himself full justice. The work in the various sections was maintained with interest to the last; but a growing feeling was developed that it would be better not to have addresses delivered before the general meeting by the respective chairmen of the various sections, or else that the scope of these addresses should be changed. The idea has prevailed that these addresses should be expositions of the progress of medical science and art. But it is utterly impossible to make such expositions in the single hour allotted to each chairman. The plan originally proposed by Prof. Gross was that an essayist be selected, who should be free to choose his own subject, whether of original experiment, clinical observation, or scientific research, and that such an appointment need not necessarily involve the duty of being chairman of a section. We understand that this question will be brought prominently before the Association at its next meeting, at Buffalo.

The various entertainments given by citizens of Chicago were well attended; but, as they have been conducted, receptions scarcely accomplish their mission in promoting acquaintance and social intercourse among the members of the Association. The American Medical Association should rely upon its own resources, instead of being dependent upon the hospitality of private citizens at each place of meeting. One of two plans might be adopted. The Association might give an annual dinner to the delegates, as is done in the British Medical Association, and as was adopted with great success at the meeting of the International Congress at Philadelphia, last year. The expense should be divided among the members, each subscribing for a ticket at the time of registration.

The cost of a dinner is undoubtedly an objection to this. Moreover, in a set dinner, intercourse is more or less restricted to neighbors, and much time is apt to be lost in the making of bad speeches.

A procedure less dignified, but less expensive, and more effective in promoting general friendship, might readily be adopted. The committee of arrangements might secure some suitable hall or garden, buy a few kegs of lager beer and a supply of cigars, and have the place open to the Association from 8 to 11 P.M.,—small tables and chairs being furnished. No doubt this would not be an aristocratic method of procedure, but in this democratic country we think it would prove eminently popular. We sympathize with President Bowditch in his desire to have the meetings conducted upon the total-abstinence principle, and think that the dryest time would be vastly better than some scenes we have witnessed at previous meetings. There was, however, a touch of human nature in the refusal of one of the Arkansas delegates to go to the receptions after the first

night, "because he would not go to a place where they would not trust him with a drink." And we opine that the Association might be trusted with beer and pretzels.

Dr. Theo. G. Wormley, of Columbus, Ohio, was elected to the chair of Chemistry, and Dr. John Ashhurst to that of Clinical Surgery, in the medical department of the University of Pennsylvania, June 4. The chair of Physiology was not filled. Prof. Tyson will deliver the lectures during the coming winter.

The Association gave the natural response to the frantic editorial we recently copied from the *New York Medical Record*, by indefinitely postponing the consideration of Dr. Squibb's proposition in regard to the Pharmacopœia.

CORRESPONDENCE.

New York, June 9, 1877.

To the Editor of the Phila. Medical Times:

DEAR SIR:—A very unusual amount of interest was felt in a special meeting of the County Medical Society, held in May, when Dr. Montrose A. Pallen read an exhaustive "*Résumé on Divisions of the Cervix Uteri for Dysmenorrhœa and Sterility.*" It was announced that Drs. Emmet, Thomas, Sims, and Peaslee would be present and take part in the discussion, and a "lively time" was generally anticipated.

In the course of his paper, Dr. Pallen gave in detail a correspondence which he had recently had with Dr. Sims. In this he propounded a series of questions to the latter, and the following is an abstract of them and the answers elicited:

(1) In simple stenosis, how do you operate? To this Dr. Sims replied that he made a bilateral incision, with his own improved instrument, up to the vaginal juncture, after which he inserted a hard plug, together with iron cotton, allowing it to remain in position for from four to six days.

(2) What proportion of cases of dysmenorrhœa do you thus relieve? To this Dr. Sims replied, a very large proportion, though he was unable to give the exact statistics. If the condition was of ovarian origin, however, but little success was attained.

(3) What proportion of cases of sterility do you cure? Here, again, Dr. Sims said it was impossible for him to give statistics, but in the removal of sterility many more points were to be taken into consideration than was the case in dysmenorrhœa. The microscope showed that the fault frequently lay with the husband, and sometimes with abnormal secretions in the passages, which destroyed the spermatozoa. Still, in appropriate cases he had obtained a fair proportion of success.

(4) What proportion of operations is followed by eversion of the lips—or so-called ectropion—of the os? Dr. Sims replied that the proportion was exceedingly small when his instrument was used, and that even when it did occur it was a trifling matter, since we have Dr. Emmet's beautiful operation for repairing such injuries about the cervix.

(5) Does the operation cause debility of the uterus or render abortion likely? To this interrogatory Dr. Sims gave a decided negative.

(6) Is it liable to be followed by pelvic cellulitis? To this Dr. Sims replied that even the most trifling manipulations about the uterus sometimes gave rise to cellulitis, but he did not regard the operation as half so dangerous in this respect as the use of sponge or laminaria tents. In New York, pelvic cellulitis occurs more frequently in February and March than at any other part of the year, so that he now never performs any kind of operations during those months if it is possible for him to avoid doing so. In a year's service at the Woman's Hospital, the operation alluded to was performed in seventy-five cases, and yet pelvic cellulitis occurred in but one out of the whole number.

(7) What are the procedures when anteflexion is present? Here Dr. Sims explained his methods of operating in different cases.

(8) In what cases would you operate? Answer: In those in which the above methods would be appropriate.

(9) How great is the danger of hemorrhage? To this Dr. Sims replied that when he used to pursue Simpson's practice of performing these operations at his office, he came near losing the lives of two of his patients, and this was a lesson to him to use greater caution. Since 1868 he has had six cases, but not a single one has occurred since he has been using the hard plug after the operation.

(10) What is the death-rate? To this inquiry Dr. Sims could give no definite answer, not having sufficient data on hand to determine the question. Since 1856 he had operated nearly a thousand times, and two deaths had occurred,—one from general and the other from pelvic peritonitis. As he had before said, he regarded the use of the sponge tent much more dangerous.

(11) After twenty years of experience, are you still of the opinion that the operation does good? Answer: Yes.

(12) Do you perform it as often as you formerly did? Answer: Yes.

Among the authorities quoted by Dr. Pallen as favorable to divisions of the cervix (in addition to Sims) were Simpson, Barnes, Graily, Harris, Schroeder, Emmet, and Thomas. Of those opposed to such operations he mentioned Tilt, Peaslee, and Goodell, the latter at present advocating the method of forced divulsion. Finally, Dr. Pallen gave his own experience. He had made incisions in the cervix 337 times, and employed sponge or laminaria tents in 150 cases, and considered the former method of treatment far more efficient as well as very much less dangerous than the latter.

It was at the conclusion of Dr. Pallen's paper that the "fun" commenced. Neither Thomas nor Emmet was present according to the announcement (the use of their names not having been authorized by them), but it was well understood that Sims and Peaslee were to be the Achilles and Agamemnon on this occasion.

It will perhaps be remembered that last June Dr. Peaslee read a paper before the Academy of Medicine which reflected rather severely on Dr. Sims's method of operation. The latter was not present, and almost immediately afterwards he sailed for Europe. At the meeting of the American Gynæcological Society in September, it was expected that he would reply to Dr. Peaslee, but he was unable to get back to this country in time, so that he had no opportunity until the present of ventilating his views on the subject. Dr. Sims, in no very temperate language, accused Dr. Peaslee of grossly misrepresenting him, saying that the bilateral operation of Simpson was never claimed by him as his own, but that he did claim the posterior incision as original; that Dr. Peaslee had never seen him operate, and that he ought to have been better informed than to criticise methods which are now entirely obsolete. He had repudiated the use of the scissors in these operations ten years ago. Dr. Sims then proceeded to give a demonstration of his present methods of operating. When the cervix projects symmetrically into the vagina, he makes the bilateral incision, also making an incision at the *os internum* if there is flexion, in order to straighten the canal. When the lips project irregularly into the vagina, the bilateral incision will not enlarge the canal, and it is then necessary to split the posterior one to the vaginal juncture, as well as to make the incision at the *os internum*, as before. After the cutting is done, he introduces a tri-valve dilator,—after the method of Ball, of Brooklyn,—after which he leaves a hard-rubber plug of appropriate size in the uterine canal for several days.

After Dr. Sims had thus relieved himself, to use Dr. Peaslee's expression, the latter proceeded to defend himself at some length, and in turn accused Dr. Sims of using language towards him which was not strictly professional; whereupon Dr. Sims, in the generosity of his nature, apologized in the most frank and honorable manner, and said that he trusted that Dr. Peaslee would not hesitate to meet him half-way. Dr. P. was not slow in expressing himself in an equally conciliatory manner, and then there was a sort of general "love-feast" all around, the two heroes cordially shaking hands together in the midst of the most deafening applause from the crowded audience present.

At the May meeting of the Public Health Association the subject of provident dispensaries was again under discussion, and this time the Society, by a unanimous vote, declared itself in favor of such institutions, and instructed a committee, appointed for the purpose, to adopt such means as shall result in their organization, if possible, either in connection with the present free dispensaries, or otherwise. There is a deep and growing feeling among the profession here that it is high time that the gross abuses to which our various charities have so long been subject should be put a stop to by some means or other.

Dr. A. B. Crosby has just given at the Academy of Medicine an exposition of what he terms "*the automatic method of reducing luxations of the hip.*" In October last there was admitted to his wards in Bellevue Hospital a typical case of dorsal luxation (the toes resting on the opposite instep, there being very marked rigidity present, and abduction being entirely impossible), but which had been diagnosed as one of fracture of the neck of the femur within the capsule, by a physician outside, and treated as such for about thirty hours previous to admission. Under these circumstances, he resolved to at once adopt the following plan. The patient, having been placed on his back upon a blanket spread upon the floor, was thoroughly anæsthetized, in order to obtain complete muscular relaxation, and the legs were flexed at a right angle upon the thighs, and the thighs similarly flexed upon the pelvis, for the purpose of removing the strain from the ileo-femoral or Y ligament. Dr. Crosby then placed his hands under the calves of the legs, quite near the knees, and, raising the pelvis a short distance from the floor, made very slight adduction of the affected limb,—when in about half a minute from the commencement of the manœuvre he had the satisfaction of feeling the head of the bone slip into its normal position. He explained that in this procedure the patient was made to perform the reduction himself, a sort of *felo-de-se*, as he termed it; the weight of his body supplying the extension, while the counter-extension was made by the operator, who performed simply the office of a post, though an intelligent one, to be sure. The method was first described to

him by a friend of his in Vermont, Dr. J. G. Allen, who had hit upon it accidentally about two years ago, while in the act of lifting a patient suffering from this dislocation, so as to get him into a suitable position for performing the usual manipulations attempted for the reduction of the deformity. Since then he has adopted the same course, with equal success, in two other similar luxations; so that Dr. Crosby's makes the fourth case in which the procedure has been employed. So far as Dr. Crosby has been able to ascertain, these are the only cases in which it has ever been done. In Dr. Bigelow's admirable monograph on luxation of the hip (a copy of which, strange to say, he found it difficult to lay his hands on in New York) he has found that the same position was used in a number of instances there recorded, but the method pursued was always different from that which he had ventured to call the automatic.

At the regular May meeting of the County Society, Dr. Henry B. Sands read a very admirable paper on "*The Treatment of Intussusception by Abdominal Section*," with the report of a case in which the operation proved successful. The case referred to was that of a child only six months of age. After repeated and persistent efforts to remove the difficulty by kneading the abdomen, inflation, and the distention of the bowel by means of warm water, the intussusception was partially relieved, but a certain portion of the invaginated intestine remained still unreduced. It was then resolved to perform laparotomy, as the child was growing quite feeble; and an incision two inches long was made just below the umbilicus, in the median line. The intussuscepted mass was found in the right iliac region, and it was found necessary to take out of the abdomen a considerable portion of the intestine in order to effect the reduction. The invaginated portion was an inch and a half in length, and there was a complete closure of the ileo-cœcal valve. Some force was necessary to reduce the intussusception, but nevertheless the subsequent progress of the case was highly satisfactory. Two of the silver wire sutures were removed on the fifth day, though some of them were left as long as the fourteenth.

Natural reduction, or the shedding of the invaginated portion of the gut by means of sloughing, Dr. Sands said, was exceedingly rare in children. Inflation or distention by fluids was applicable only when the intussusception was located in the large intestine. The testimony of various authorities shows that the operation has not yet received the sanction of the profession generally in acute cases. Dr. Sands's case makes the twentieth now on record. The first *successful* one of these was performed by Jonathan Hutchinson, in England, in 1873, and the only other American case besides Dr. Sands's was that of Dr. Wilson, of Tennessee, in 1836. Out of the twenty cases, seven recovered; showing a mortality of 65 per cent. In one of these the intussusception was situated in the small intestine—recovery. In fourteen it was in the large intestine, and of these four recovered and ten died. In five the seat of the trouble was not mentioned, and of these two recovered and three died. The mortality seems to depend on the condition of the intestine rather than upon the age of the patient. Abdominal section should never be rashly undertaken, and before resorting to it, it may be well to endeavor to effect the reduction by placing the hand in the rectum, after the method of Simon; though this is of no use if there is much tympanites present. The following are some of the conclusions arrived at by Dr. Sands:

(1.) The success achieved in the past is sufficient to warrant the operation in appropriate cases.

(2.) In intussusception, as in strangulated hernia, the danger lies in delay.

(3.) If undertaken within thirty hours, the operation offers an excellent chance of success.

(4.) Chronic cases are often unsuspected.

(5.) In infancy, the mortality of intussusception is due to the condition of the intestine.

(6.) There is no chance of a cure taking place spontaneously in young children.

The American Neurological Association has just completed its annual meeting in this city. Two sessions were held daily on the 6th, 7th, and 8th, at the College of Physicians and Surgeons, and many papers read. Dr. I. S. Jewell, of Chicago, was re-elected President of the Association.

During the past month, at Bellevue Hospital, Dr. James R. Wood has successfully *ligated the external iliac* for femoral aneurism seated high up in the artery; and at the same hospital Dr. Gouley has recently established perineal *boutonnières*, as he calls them, in two cases of amputated penis. The operation consisted in making an incision from the perineum into the urethra, and then stitching the cut surfaces of the urethral mucous membrane to the edges of the external wound, and was very satisfactory in both instances. In the first case the penis had been amputated in Cincinnati, but in the second Dr. Gouley performed the amputation himself, the whole organ being one enormous growth of cancer.

Of those whose loss by death the profession has lately been called to mourn here, the most prominent are Dr. Charles A. Budd, late Professor of Obstetrics in the Medical Department of the University of New York, and as genial and popular in all circles of society as he was accomplished in his profession; and Dr. H. H. Gregory, the best-known and most successful practitioner in Harlem. The funeral of the latter is said to have been by far the largest that was ever seen in that ancient suburb.

An unusually large number of our medical men either have gone or are about to go abroad this summer. Among them are the following: Wm. H. Van Buren, L. A. Sayre, Wm. H. Draper, J. Marion Sims, H. Knapp, John C. Jay, Jr., D. M. Stimson, and, of course, Fordyce Barker.

The physicians and surgeons composing the staff of the Demilt Dispensary have organized themselves into a permanent medical board, of which all former members of the staff are to be honorary members, and one of the principal objects of which is to be the publication every month of reports of interesting cases, or novel methods of treatment, from one or more of the various departments of the dispensary. The Demilt, from its central position, abundant means, enlightened administration, and the high character of its medical staff, has always enjoyed an enviable reputation among similar institutions in this city and elsewhere.

The recent changes in the medical department of the University of Pennsylvania meet with the unqualified approval of all the friends of a higher education both in medicine as well as in other departments of professional life, and I have yet to hear the first word of unfriendly criticism from any source whatever. The entire medical fraternity here certainly wish the venerable and illustrious institution the most abundant success in its great undertaking; but some of them cannot help wondering where all the money is to come from for the support of so many professorships, as the classes will undoubtedly be considerably diminished,—at first, at all events. In a recent letter to the *Tribune*, Prof. St. John Roosa, of the New York University, holds up the University of Pennsylvania as an example well worthy of emulation, and makes a forcible plea for the endowment of the New York schools.

PROCEEDINGS OF SOCIETIES.

AMERICAN MEDICAL ASSOCIATION.

THE twenty-eighth annual meeting of the American Medical Association was held in Chicago, commencing June 5, and ending June 8, 1877. The session was well attended, the entire number enrolled being 685, delegates, permanent members, and members by invitation. The weather was clear and cool, even chilly, and was most favorable for securing full attendance and good work in the various sections, and to enhance the enjoyment of the social entertainments provided by the Committee of Arrangements.

FIRST DAY'S PROCEEDINGS.

At 11 o'clock, J. MARION SIMS, M.D., called the Association to order to introduce the President, Prof. H. I. BOWDITCH, of Harvard, who thereupon invited the Rev. WM. L. HARRIS, D.D., LL.D., Bishop of Illinois, to open the proceedings with prayer. The chairman of the Committee of Arrangements, Dr. N. S. DAVIS, of Chicago, delivered the address of welcome, in which, after tendering the hospitalities of the city and mentioning its attractions, he briefly referred to the formation of the American Medical Association, thirty-one years before, in the city of New York. Of the 76 members present at that meeting, he could only recognize one at this session, Dr. Washington L. Atlee, of Philadelphia. The annual address by the President, Dr. BOWDITCH, reviewed the past of the Association, and contrasted the present harmonious and orderly session with the scenes of turbulence that were often witnessed in the early meetings. In connection with this, he pointedly referred to the fact that the absence of wine at the receptions in Louisville was an evidence of real progress, and should be recommended in future to the Committee of Arrangements, in order to maintain the dignity and respect becoming the meetings of the American Medical Association. In order to improve the Transactions, he urged discrimination in the selection of essayists, and recommended that some modification of the Smithsonian plan be adopted, by means of which all papers read before the Sections would be submitted to examination by experts whose names should not be divulged, but whose decision should be final; and that no paper should be deemed worthy of publication which did not give something new to medical science, or which did not present such an analysis or such new or lucid arrangement of facts already wholly or in part known as to greatly aid the profession. He suggested that a standing committee be appointed to procure scientific papers for the annual meetings from the best men in the country. He advocated a reduced rate of representation from the various constituent societies, so that the honor of being a delegate would be more sought after and better appreciated, and thought that every honorable physician who felt any interest in the general progress of the profession should desire to become a member of this Association. The proposition for the union of the American Medical Association and the Canada Medical Association was carefully considered. He expressed himself as strongly in favor of some means of conference at stated times, and recommended the matter to the attention of the Judicial Council. The address concluded with a tribute to the medical colleges, whose instructors were cordially welcomed to the Association, for the sake of the influence of good learning upon the future of the profession in this country.

The recommendations contained in the address were referred to a special committee, to report the next morning.

In the afternoon the Sections were well

attended. Dr. N. S. DAVIS read the paper of Dr. A. B. PALMER, of Michigan, on the "*Treatment of Croupous Pneumonia*," the author being absent. The special method of treatment advocated was by full and often-repeated doses of quinine, giving thirty or forty grains in twenty-four hours, combined with occasional small doses of morphia. When this is instituted before much exudation has taken place, the effect, as a rule, is said to be a decided reduction in temperature and in the frequency of the pulse, slower and more easy respiration, with moist skin, diminution of the cough and amount of expectoration, in short, subsidence not only of the fever but also of the evidences of pulmonary engorgement and inflammation, the quantity of quinine to be given being gauged by these effects produced; the only after-treatment necessary being a mild cathartic and supporting diet.

In the discussion of the paper, Dr. MURPHY, of Cincinnati, denied that pneumonia could be thus aborted by any mode of treatment. Dr. L. P. YANDELL, of Louisville, considered malaria as the most prolific source of disease, and in this class of pneumonia cases quinine is most useful. Several others participated in the discussion, the general verdict being that no line of treatment is applicable to all cases, and that the patient should be treated and not the disease.

Dr. JOHN MORRIS, of Maryland, read part of a paper on the "*Effects of Remedies in Small Doses*." As the essay was in an unfinished condition, it was withdrawn at the author's request, with the privilege of publishing it elsewhere, after completion, as having been "read before the American Medical Association." The essay was disappointing in its character, as from the title it was reasonably expected that it would contain original research, clinical observation, or physiological experiment, in place of which it embodied trite observations and unconfirmed statements, and ended with conclusions which, if not entirely independent of anything contained in the essay, were at least not legitimately drawn therefrom.

In the Section on Obstetrics, Dr. W. H. BYRD, of Quincy, Ill., read a brief paper upon "*Surgical Treatment of Some of the Diseases of the Female Urethra*," in which he described a case of morbid growth surrounding the meatus, which was readily removed after extreme dilatation of the canal. Dr. KENDALL, of Quincy, arose in his seat, and stated that the sketch accompanying the paper was a fanciful one, and that the patient, who had been previously under his care, had merely an ordinary thickening of the urethra from syphilitic deposit.

The paper of Dr. GILMAN KIMBALL, of Lowell, Massachusetts, on "*Extirpation of the Uterus*," is a valuable contribution to surgical science. The operation is comparatively rare, and is generally unsuccessful. In cases of malignant disease the result is always fatal. The question to be considered is this: "Is the operation of gastrotomy, as applied to fibroid or other benign growths of the uterus, a legitimate operation?" The answer given is, "The instances calling for operation are extremely rare, and it should be considered as a *dernier ressort* when there appears to be nothing before the patient other than certain death without it." The fact that fibrous tumors of the uterus, after attaining a certain growth, may remain stationary for years, should forbid operation unless other symptoms imperatively demand it. Favorable cases are rarely met with that call for or justify gastrotomy. Some of the conditions that should forbid interference are:

1. When the constitution is broken down, gastrotomy cannot be otherwise than fatal.
2. When the weight of the tumor is thirty or forty pounds, the resulting nervous shock is so great as to debar the operation.
3. Hemorrhage during or after operation constitutes a grave danger.
4. The adhesions, more or less intimate, with the surrounding parts, increase the risk to the patient.
5. When the disease develops downward, involving the vagina and filling the pelvis, it should not be interfered with.

Conditions favorable to operation are small size of the tumor, freedom from adhesions, pedicle of good length, and the disease entirely restricted or confined to the abdomen. Operations on record have been almost universally performed under a mistake in diagnosis, the one reported by Dr. Kimball in 1853* being the first on record where the operation was undertaken for the extirpation of the uterus based on correct diagnosis. He has performed the operation twelve times, with six deaths, two of which were from septicæmia. In some he had introduced a drainage-tube through the *cul de sac* of Douglass, with good results.

As compared with ovariotomy, the latter operation is far more favorable; under certain circumstances, however, extirpation of the uterus is justifiable; but such cases are rarely met with.

Dr. F. H. HAMILTON, of New York, was elected chairman of the Section on Surgery, and Dr. JOHN E. OWENS, of Chicago, was chosen secretary in the place of Dr. Gunn, resigned. The entire afternoon was devoted to the reading and discussion of the paper on the "*Value of Extension in the Treatment of Fracture of the Femur*," in which suspension of the limb was insisted upon.

The special interest in the subject seemed to centre in the fact that some misunderstanding existed regarding statements concerning fractures made at previous meetings of the

* Boston Medical and Surgical Journal, May, 1853.

Section on Surgery. The following resolution was offered by Dr. W. F. PECK, of Iowa, and, after discussion, adopted:

"*Resolved*, That it is the opinion of this Section that shortening in cases of fracture of long bones is the rule in practice, regardless of any of the plans of treatment now in use."

In the Section on State Medicine and Public Hygiene an able and exhaustive paper on "*The Etiology of Enteric Fever*" was presented by Dr. J. L. CABELL, of Virginia, in which the alleged protection from typhoid fever, supposed to exist in the presence of malaria, was carefully considered and disputed. He was of the opinion that typhoid poison may have other sources than fecal matter, sewage, or miasm, and regarded the disease as a specific fever, perhaps largely attributable to contact with the sick.

Dr. JOHN P. GRAY, of Utica, read an essay on the "*Relations of Spiritualism to Medical Jurisprudence*" before the Section on Psychology; the conclusion being that its medico-legal bearing must be determined by the facts in each case, as to whether spiritualism is an insane delusion or not,—that is, the offspring of disease of the brain,—or simply entertained as a speculative belief with reference to the unseen world. Medical science can take no cognizance of it as a speculation more than it can of any other "ism."

SECOND DAY'S PROCEEDINGS.

The committee appointed to consider the various propositions contained in the President's address presented a report, which, on motion, was laid on the table. Dr. SQUIBB, by appointment made at the previous session, presented the subject of the Revision of the Pharmacopœia. When his hour expired he was only about half-way through his argument, and he requested that the subject be referred to the Committee of Arrangements to appoint a future time for the further consideration and completion of the address. This suggestion was, on motion, adopted.

Dr. JAS. P. G. ROBINSON, of Missouri, chairman of the Medical Section, read a paper on the "*Progress of Medicine during the Past Year.*" In the course of the address he mentioned the case of hydrophobia reported by Dr. Watson, of Jersey City, in the *American Journal of the Medical Sciences* for July, 1876, said to have been cured by woorara and strychnia, in which he discredited the diagnosis. Xanthium spinosum was also pronounced, after careful physiological experiment, to have been found inefficient in the treatment of this uniformly fatal malady. The great question to be settled in cases of reported recovery is that of diagnosis.

Dr. Robinson also referred to the communicability of typhoid fever by milk, the treatment of rheumatism by salicylic acid, and the importance of hygienic and sanitary legislation in preventable disease.

A recess of ten minutes was declared for the purpose of organizing the Committee on Nominations.

Dr. WHITE, of Buffalo, read part of his address on the "*Progress of Obstetrics*," which was afterwards finished in the section.

The proceedings in the various sections were interesting and well attended. Before the Section on Medicine, Dr. H. I. BOWDITCH exhibited an appliance designed by Dr. French, of Portland, *for the alleviation of distress accompanying asthma.* It consisted of a support, with bands of webbing so arranged as to keep the head and chest in a favorable position during violent attacks of dyspnœa. The invention met with general approval, and a cut of the apparatus was ordered to be placed in the Transactions.

The *report* of Dr. DAVIS on *Clinical and Meteorological Records* was of unusually interesting character. He urged the combination of the meteorological reports of the United States Signal Service with the notes of cases, and especially of epidemics, in order to determine the laws of disease as affected by the presence of moisture, ozone, and different electrical conditions of the atmosphere. From this study conducted at Chicago, Cairo, Davenport, and one or two other points, valuable deductions have been drawn. He had himself noticed that the diarrhœa, so peculiar to temperate climates, invariably begins its annual prevalence with the first week of *continuous* high summer temperature, and that every subsequent return is connected with high temperature; the disease depending not so much on the degree of heat as upon its duration.

In the discussion which followed, Dr. Davis stated that diarrhœa prevailed after continued heat, but that dysentery generally followed hot weather which had been preceded by a comparatively cold spell. The paper was ordered to be published.

Dr. CHARLES DENISON, of Colorado, read a supplement to a paper presented the year before on the "*Influence of Colorado Climate on Consumption*," accompanied by a topographical map of the region. He read the notes of several cases which had been benefited by residence in Denver, and thought that the favorable influence of high altitudes was most pronounced in the incipiency of inflammatory and hemorrhagic cases; the measure and severity of the disease, inheritance, and mental condition, all requiring consideration in the prognosis. In some cases the symptoms were apparently aggravated by the rarefaction of the air, which required them either to expand the lungs more fully at each inspiration or to breathe more frequently; where the lung-tissue is much invaded by disease, this constitutes a positive contra-indication to sending patients to Colorado for treatment. Patients in advanced stages of phthisis are better at home, especially when a heart-complication exists; but the presence of a cavity

in the lung is not in itself sufficient to forbid recovery. "The truth is, the systemic influence of extensive disease in the first is often much greater than the slight inroads of phthisis in the third stage."

The paper entitled "*Permeability of the Entire Alimentary Canal by Enema, and Some of its Surgical Applications*," by Dr. ROBERT BATTEY, of Georgia, was postponed until next year, at the request of the author, he having been unable to finish the article in time for this meeting.

Prof. GROSS read a paper on "*Stricture of the Urethra from Masturbation, and its Pathological Significance*," by S. W. GROSS, M.D., of Philadelphia, who was unable to attend. Examination of the urethra by olive-pointed bougies of good size enables the surgeon to locate and define a stricture which would pass undetected by the old metallic bougies. A new instrument for internal urethrotomy was exhibited, which, being olive-pointed, concealed a knife-blade at its shoulder, by which a stricture could be incised to any desired extent.

Dr. W. T. BRIGGS, in a paper on "*Medio-Bilateral Lithotomy*," advocated this mode of operating as the simplest, safest, and best adapted to the majority of cases.

"*The Treatment of Fractured Ribs by Extension and Expansion of the Thorax and Retention by Plaster-of-Paris Bandage*," was the title of a practical paper by Dr. LEWIS A. SAYRE, of New York. The method recommended was to make the patient grasp a ladder or point of support above the head, by which the pectoral muscles should be put on the stretch and the ribs extended. Having the bones in apposition, they are retained by the roller and plaster bandage.

In the Section on Medical Jurisprudence, Chemistry, and Psychology, Dr. R. J. PATTERSON, of Illinois, presented a paper entitled "*Do Facts justify the Recognition of Moral Insanity as a Distinct Form of Mental Disease?*" which query he answered in the negative: "most decidedly, there is no such thing as moral insanity."

In discussing the essay, Dr. BUCK, of Canada, and Dr. SEGUIN, of New York, expressed their belief in a form of moral insanity, and cited cases in support of this view; but the conclusions of the paper were supported by a number of others.

Dr. F. N. BELL called the attention of the Section on State Medicine and Public Hygiene to the propagation of tuberculosis by articles of food, in a paper on "*Tuberculosis in Milch Cows, and the Contagiousness of Tuberculosis by the Digestive Organs.*" The transmissibility of the disease by this method is undoubted. The practical deductions from the paper were that the strictest police inspection of public meat-markets should be instituted, and tubercular meats condemned and destroyed, the sale of such diseased articles of food should be forbidden under heavy penalties, and the greatest care exercised in obtaining milk from healthy cows for the rearing of infants.

In the evening the *Rocky Mountain Association* met at the Palmer House, to hear the annual address by the president, Dr. TONER. The association is composed of those members of the American Medical Association who crossed the Rocky Mountains in 1871 to attend the meeting in San Francisco. After listening to the address, a copy of which was requested for publication, the Association adjourned, after electing Dr. N. S. DAVIS president for the ensuing year.

THIRD DAY'S PROCEEDINGS.

The Secretary stated that the only reports on necrology in hand were those from the States of Indiana, Maryland, and Missouri, and the United States Army. They were referred to the Committee on Publication. The Committee on Prize Essay reported that only one essay had been placed in its possession in time for examination, and that they did not consider it entitled to the prize.

The Judicial Council reported in regard to several cases of disputes as to representation, which had been referred to them. They recommended, in regard to the question between the Arkansas State Medical Society and the Arkansas State Medical Association, which was decided in favor of the former last year, that no further action be taken, and that the application of the latter body for representation be refused. They also reported favorably on the admission of delegates from the Branch County Medical Society of Michigan, and against the admission of a delegate from the Hendricks County Medical Society. In the matter of certain charges, the committee reported that, inasmuch as the said charges had no bearing on the professional standing of the defendants, they should be dismissed. The report was accepted.

The Committee on Publication in their report condemned the system of so-called verbatim reports of discussions in the various Sections, and recommended that these reports be made in future by medical men, who alone are qualified for the task. Of vol. xxvii. of the Transactions, 1250 copies were printed, 1207 of which have been distributed. The same edition of the prize essay was published, of which 1063 were distributed.

The Treasurer, Dr. CASPAR WISTER, of Philadelphia, reported as follows:

"Under the positive instructions of the Association, the prize essay has been published, at a cost of some $6000. This unusual outlay, in addition to the annual volume of Transactions, leaves the treasury in an exhausted condition, as it has practically given to each member $9 in value for $5 received. In this his last report, after twenty-two years of service, it remains for the Treasurer to thank the Association for its long-continued

confidence, and to regret that in leaving the treasury solvent he cannot leave a more abundant surplus." The balance in the treasury was stated to be $172.72. The report was accepted and referred.

Dr. EZRA M. HUNT, of New Jersey, chairman of the Section on State Medicine and Public Hygiene, delivered the annual address on these subjects, in which he urged a more efficient sanitary police, and called upon municipal authorities to furnish means to the local Boards of Health, so that they would be enabled to strangle an epidemic at its birth. Medical colleges were solicited to make the study of hygiene a part of their curriculum, as in the Johns Hopkins College of Baltimore, so that public health officers might be furnished with special training for their work.

The address was well received, and was referred to the appropriate Section for discussion.

The librarian reported the addition of 187 distinct titles during the year, making the library now to consist of 817 titles, comprehending about 2034 volumes, inclusive of pamphlets. In the department of foreign exchanges the library is reaping most valuable benefits.

Dr. SQUIBB now resumed the reading of his lengthy argument on the revision of the Pharmacopœia. In conclusion, he said that he was tired of the whole subject,—that the Association might table it, or it might prepare a plan and offer it to the public, or, in the third place, it might appoint a committee to prepare a report for presentation at the next annual meeting. These three courses were open to the Association, and in either case he would be satisfied.

OFFICERS OF THE ASSOCIATION.

Prof. GROSS, chairman of the Committee on Nominations, moved a suspension of the regular order of business, in order to hear a partial report from that committee. The motion was carried, and the report read as follows:

"The Committee on Nominations respectfully report the following for the various offices named:

President—T. G. Richardson, M.D., Louisiana.

Vice-Presidents—J. P. White, M.D., New York; Moses Gunn, M.D., Illinois; G. W. Russell, M.D., Connecticut; and A. Dunlap, M.D., Ohio.

Section of Medicine, Materia Medica, and Physiology—Chairman, A. L. Loomis, M.D., New York; Secretary, J. H. Etheridge, M.D., Illinois.

Section of Obstetrics and Diseases of Women and Children—Chairman, E. W. Jencks, M.D., Michigan; Secretary, H. O. Marcy, M.D., Massachusetts.

Section of Surgery and Anatomy—Chairman, Henry H. Smith, M.D., Pennsylvania; Secretary, E. Z. Early, M.D., Arkansas.

Section of Medical Jurisprudence, Chemistry, and Psychology—Chairman, W. Kempster, M.D., of Mississippi; Secretary, E. A. Hildreth, M.D., West Virginia.

Section of State Medicine and Public Hygiene—Chairman, J. L Cabell, M.D., Virginia; Secretary, E. J. Marsh, M.D., New Jersey.

Time and Place of next Meeting—At Buffalo, New York, on the first Tuesday of June, 1878.

Prof. H. C. WOOD, in a brief reply to Dr. Squibb, denied that he had spoken for the University of Pennsylvania, as had been stated. He regretted that personalities had been introduced into the discussion and the motives of honorable men meanly misconstrued. Dr. George B. Wood, formerly president of the American Medical Association, and now in failing health, keenly felt the attack upon his character, and did not want the Association to put upon record that he had prostituted his position, and that conventions had been manipulated in order to allow him and Dr. Bache to build up their private fortunes out of the present Pharmacopœias. He hoped the Association would not say that the labor to which he had devoted his life was a failure. It was a point of honor with these gentlemen, and not one of money.

The proposition to issue a new Pharmacopœia meant the introduction of discord into the Association and confusion in the profession. The American Medical Association could not agree on so simple a matter as the nomenclature of disease, and it was not at all likely that they would be able to agree on such a measure as proposed by Dr. Squibb. The two Pharmacopœias might exist side by side, and the rule of the survival of the fittest would scarcely apply, because one would inevitably flourish in one section of the country and the other would prevail elsewhere.

Prof. N. S. DAVIS, of Chicago, endorsed the sentiments expressed, and moved that the whole subject be indefinitely postponed. This motion was carried by a large majority.

In the various Sections, work having accumulated, the time was devoted to hearing papers, and but little was devoted to their discussion. Several essays were also referred to the Publication Committee without reading, among which was a paper by Geo. E. Holton, of Ohio, on "*Phthisis Pulmonalis.*"

In the Surgical Section a paper was read by FRANK WOODBURY, M.D., on "*Suspension as a Means of Treatment in Spinal Distortions*," by Dr. BENJ. LEE, of Philadelphia, and the apparatus, or "spinal swing," was exhibited and explained. In discussing the subject, Dr. Sayre pronounced Dr. Lee's apparatus one of the most important appliances ever devised for the purpose.

An article by Prof. GROSS, "*On the Immediate or Proximate Cause of Pain*," was listened to with marked interest. The similarity of the nervous fluid and electricity was con-

sidered, and their possible identity suggested, modified by the play of the vital actions which everywhere exist in the organs and tissues through which the nervous fluid circulates. The fluid under consideration being generated by the brain, spinal cord, and nervous ganglia, the nerves simply act as conductors of the impulse, pain being due immediately and directly to some obstruction to the transmission of the nervous current, thus causing an accumulation of nervous fluid at the site of obstruction. Pain can only be experienced in connection with a normal condition of the nervous centres concerned, or, conversely, when the brain and spinal cord are seriously affected there can be no perception of suffering whatever. Pain is modified, finally, by the structure of the part involved, and by the nature of the exciting cause.

Dr. SAYRE presented a case of *choreic manifestations* in an idiotic and emaciated child of 12 years, which he pronounced entirely reflex in its nature and due to genital irritation, and for which he recommended clitoridectomy. He stated that the vulva was inflamed and congested, and invited the audience to notice the general spasmodic seizure produced when he touched the patient's clitoris. As the audience was "mixed," this exhibition verged on indecency, or was at least in questionable taste in a public gathering; although it must be acknowledged the demonstration was very effective, and the result as striking as could be expected from the subject of the experiment. From a scientific standpoint, it would be interesting to know how much the average non-choreic female would flinch when the clitoris was pressed upon by a member the size of Dr. Sayre's thumb.

FOURTH DAY'S PROCEEDINGS.

This being the last day of the session, communications from the Secretary and the Committee of Arrangements, and reports from the several sections, were received and referred.

The Nominating Committee completed their report, making Dr. Richard J. Dunglison, of Philadelphia, Treasurer of the Association, in place of Dr. Wister, resigned, and Dr. Lee, of Washington, Librarian, which was adopted, and the officers elected.

Dr. Squibb asked permission to withdraw his paper from the minutes of the Association, which was granted.

Upon motion of the Secretary, Dr. Thomas M. Drysdale, of Philadelphia, now travelling in Europe, was accredited a delegate to foreign Medical Societies, and Dr. Clifton E. Wing, of Massachusetts, was appointed a delegate to the Canada Medical Society. Dr. Lewis A. Sayre, of New York, was, on motion, constituted a delegate to the next meeting of the British Medical Association.

The report of the special committee of which Dr. E. Seguin, of New York, is chairman, recommended that the American Medical Association send special delegates to the International Medical Congress at Geneva, to advocate the adoption of uniformity of means of medical observation and keeping of records, and to act with the concurrence, if possible, of those members of the Congress who will be found engaged in advocating the application of uniformity in this and other departments of science. The report was adopted, and Dr. Seguin was appointed chairman of the commission.

The Kentucky State Medical Society recommended the passage of certain resolutions in behalf of what is known as the Morrison bill for the discontinuance of the tariff on quinine, which were adopted, and the Secretary directed to transmit a copy to the National Congress.

Dr. SINGLETON, of Kentucky, offered the following: "*Resolved*, That the members of the American Medical Association regard with feelings of the deepest pride and pleasure the sentiments of peace and nationality now existing and steadily gaining in our great country; and that in commencing the second century of our national independence we hail the present and prospective harmony of the American Sisterhood of States as promising the greatest and most beneficent results in science and humanity in the future."

This was seconded by Dr. Eugene Grissom, of North Carolina, and unanimously adopted, with great applause.

Dr. WOODWARD, U.S.A., offered the following, which was also adopted:

"*Resolved*, That from this meeting, and hereafter, the practice of printing in the transactions of the Association the so-called verbatim reports of the debates in the Sections be discontinued, and that the reports of the Sections be limited to the papers presented and recommended by the Sections for publication, and such minutes as may be actually read before the Section."

Dr. HENRY H. SMITH, of Philadelphia, offered a resolution which was unanimously adopted, by which the Association expressed regret at the announcement of the illness of its former President, Dr. George B. Wood, and tendered him the assurance of sympathy and continued regard.

In accepting the resignation of Dr. Caspar Wister, of Philadelphia, a vote of thanks was tendered to him for the faithful manner in which for twenty-two years he had filled the office of Treasurer of the Association.

Dr. T. G. RICHARDSON, of New Orleans, was now installed as President by Dr. Bowditch, the retiring incumbent. In a neat and graceful address Dr. Richardson tendered his thanks to the Association for the high honor conferred upon him, which he declared was intended as a compliment to his section of the country, the great Southwest, rather than to himself, who was personally unacquainted with the greater part of those present. He

thanked them for this renewed evidence of good feeling, and especially "in the name of my dearly loved little Louisiana, who, having at last emerged from the thicket of briers and thorns in which she has been for so many years entangled, is now arranging her dishevelled hair and mending her tattered garments in order that she may make a respectable appearance in the now—thank God—unbroken national family circle." He felt a deep sense of unworthiness to fill the chair that had been occupied by the great men who had preceded him, but asked the Association from the shreds of his inefficiency to weave a mantle of charity under which his shortcomings might be hidden.

Dr. BRODIE, of Michigan, offered a resolution of thanks to the Committee of Arrangements, and Dr. WOODWARD, U.S.A., was called upon for an address of acknowledgment of the hospitality of Chicago physicians, in the course of which he was interrupted by frequent applause.

The Association then adjourned. F. W.

GLEANINGS FROM EXCHANGES.

A NEW PREPARATION OF IODINE (*The Practitioner*, May, 1877).—Mr. J. Crouch Christopher calls attention to a new preparation, which, he says, in his hands has proved to be more useful and to have fewer disadvantages than other remedies of like nature in more general use. It consists of twelve grains of cinchona flava, one grain and a half of iodine in the form of hydriodic acid, and one grain of protoxide of iron to a fluidrachm of liquor. The fact that the iron compound remains in the state of proto-salt (whereby its value is enhanced), and that the liquor never, either by time or exposure, becomes inky through the action of the tannin in the bark, tends to show that there is something more in this case than a mere mixing of ingredients.

The cases in which this preparation or compound has been found most useful were, for the most part, cases of secondary and tertiary syphilis, particularly those in which mercury had been lavishly used or abused,—cases in which it was difficult to determine to what extent the diseased condition was due to syphilis, to the abuse of mercury, or to a combination of both. Great benefit has been derived from its employment in cases of persistent and frequently-recurring boils at a time when what may be termed a furunculoid epidemic existed.

It has been serviceable also in cases wherein it was important to give iodine in some form without incurring the risk of depressing the patient unnecessarily,—such as cases of scrofula, anæmia, and glandular enlargement. Some of these, intolerant of the officinal preparations of iodine, tolerated this, and were benefited by it.

SULPHUROUS ACID (*Ibid.*).—Dr. Walter Fergus publishes the results of his experience with sulphurous acid. In tonsillitis and pharyngitis no remedy gives such relief as the frequent spraying of the part with undiluted sulphurous acid. So great is the ease given by it that patients ask to have it repeatedly applied. In diphtheria Dr. F. relies exclusively upon the sulphurous spray, its aerial inhalation, and ice, as topical remedies. In chilblains, hay asthma, sprains or bruises, contused wounds, burns, etc., he recommends its local use as a spray or lotion in the strength of one part of acid to from ten to twelve parts of water. He reports a case of compound comminuted fracture of the leg, in which the lotion was used and the wound dressed under the spray. It healed with scarcely the appearance of pus. He then considers the use of sulphurous acid as a disinfectant and antiseptic: he does not think it is well to have a slow continuous evolution of the gas going on in a room, but prefers to use it at intervals in full strength, and to flush the room immediately afterwards with pure air from the outside. He burns common flowers of sulphur with about one-fortieth part its weight of finely-powdered charcoal. A convenient quantity of the mixture may be placed upon a piece of sheet-iron and lighted with a match. He asserts that the fumes are not only unirritating, but that in cases of catarrh, bronchitis, and pneumonia, they are often positively beneficial.

CASES ILLUSTRATING THE ADVANTAGES OF THE GENU-PECTORAL POSITION (*The Lancet*, March 17, 1877).—Dr. Arthur W. Edis reports the following cases illustrating the advantages of the genu-pectoral position:

A. L——, æt. 20, married four years, sterile. Suffers much from severe pain in lower back, and down the left leg on standing or walking. Has severe pain in coitus and defecation, always worse just before the catamenial period.

On examination, the uterus was found to be retroverted and the left ovary prolapsed and exquisitely sensitive to the touch. On placing the patient in the genu-pectoral position, and allowing the air to enter per vaginam, the uterus was readily replaced, and the ovary could no longer be felt.

Impregnation having occurred after coitus in the genu-pectoral position, the patient missed her next period for the first time in her life. Considerable relief to the other symptoms was also experienced. A Hodge's pessary was passed, but could not be retained owing to the sensitive condition of the ovary. In consequence of some domestic trouble, the patient miscarried about the sixth week.

Impregnation again took place by resorting to the same posture, a month subsequent to this, and utero-gestation is now progressing

accompanied by the usual symptoms. A Hodge's pessary together with a frequent resort to the genu-pectoral position prevents the uterus remaining retroverted, and there is every prospect of the case proceeding to a favorable termination, and this after four years' sterility.

S. F——, æt. 29, married two years, sterile. Uterus found to be retroverted, cervical canal slightly granular. A Hodge's pessary was inserted, and nitric acid applied to the cervix. Relief to the symptoms ensued, but the sterility remained unimproved. Impregnation ensued the very first time coitus was effected in the genu-pectoral position. The patient miscarried during the second month of utero-gestation from over-fatigue and jolting in an omnibus. The pessary remained in, but the patient never assumed the knee position, as she had no discomfort.

Eight months subsequently to this, the local symptoms being very slight, the patient again consulted me respecting her infecundity. Adoption of the posture above mentioned was advised, and later on I learnt that again she had become pregnant within a few days of my seeing her. Pregnancy advanced satisfactorily, the knee-position being frequently resorted to until after the fifth month, with manifest relief to the morning sickness and the feeling of bearing-down.

NITRITE OF AMYL (*The British Medical Journal*, January 27, 1877).—Mr. W. D. Lane reports the following conclusions as the result of various experiments made with amyl-nitrite;

1. Amyl-nitrite, when inhaled in small quantities, produces reddening of the face in man, and of the nose and mouth in kittens: this action is due, according to Brunton, to the dilatation and overfilling of the arterioles.

2. When inhaled by kittens in large quantities, it produces cyanosis of the nose and mouth, along with insensibility. The cyanosis arises from overdistention of the venous system, this being due to the engorged arterioles propelling the blood into the veins, while the insensibility is probably caused by overdistention of the venous system and the heart.

3. When inhaled in small quantities, it produces recovery from chloroformic insensibility, by dilating the arterioles of the brain and thus removing the cerebral anæmia due to the chloroform.

4. When inhaled in large quantities, instead of producing recovery from chloroformic insensibility, it not only retards it, but it may cause death by paralysis and overdistention of the heart, and engorgement of the venous system.

5. It causes a rise of temperature when inhaled in small quantities by the increased amount of blood in the arterioles causing an increased tissue-change in the body.

6. In large doses (inhaled) it produces a fall of temperature.

7. It also helps to produce recovery from the chloroformic insensibility by raising the temperature which is always lowered by chloroform, and by removing the paralysis of the heart due to chloroform: this action is well seen by the nitrite of amyl making the heart's beat fewer and its sounds louder.

8. Death is caused chiefly by paralysis of the heart, which is shown by all its cavities being distended, and by engorgement of the venous system.

CAN A STROKE ON THE FACE RUPTURE THE MEMBRANA TYMPANI? (*The Clinic*, June 2, 1877.)—Dr. Fritsch proves the affirmative by citing several cases, and claims that, on testing by Valsalva's method, a loud whizzing can be heard in the external auditory passage. If the opening in the membrane be the result of disease, the sound is of a hissing character, which can be readily explained by the partial stoppage of the Eustachian tube by inflammatory secretions. The opening in the membrane produced by a blow is a fissure, whilst that caused by disease is round or oval.—*Allg. Med. Central-Zeitung*, No. 33, 1877.

IT is stated that "sweet fern" (*Comptonia asplenifolia*) commands in Maine five dollars a ton. It is used in the manufacture of tannin.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JUNE 3, 1877, TO JUNE 16, 1877, INCLUSIVE.

SUMMERS, JNO. E., SURGEON AND MEDICAL DIRECTOR.—Granted leave of absence for one month. S. O. 76, Department of the Platte, June 9, 1877.

PAGE, CHAS., SURGEON.—To perform the duty of Medical Director of the Department during absence of Surgeon Summers. S. O. 76, c. s., Department of the Platte.

ALEXANDER, C. T., SURGEON.—Assigned to temporary duty at these Headquarters, and to accompany the Department Commander during existing field operations. S. O. 62, Department of the Columbia, May 29, 1877.

GRAY, C. C., SURGEON.—To report in person to the Commanding General, Department of the Missouri, for assignment to duty. S. O. 119, A. G. O., June 4, 1877.

VICKERY, R. S., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Hamilton, N. Y. H. S. O. 131, Division of the Atlantic, June 15, 1877.

MOFFATT, P., ASSISTANT-SURGEON.—Assigned to duty at Fort Mackinac, Michigan. S. O. 131, c. s., Division of the Atlantic.

PAULDING, H. O., ASSISTANT-SURGEON.—Relieved from duty in the field, and to resume his duties as Post Surgeon, Fort Ellis, Montana Territory. S. O. 71, Department of Dakota, June 5, 1877.

HALL, W. R., ASSISTANT-SURGEON.—To accompany the troops withdrawn from Alaska, and, upon arrival at Fort Stevens, Oregon, to report to the Commander of that post for duty as Post Surgeon. G. O. 13, Department of the Columbia, May 23, 1877.

TORNEY, G. H., ASSISTANT-SURGEON.—To accompany battalion 16th Infantry from New Orleans, La., to Fort Leavenworth, Kansas, to remain on duty with regiment, and await orders from A. G. O. relieving him from duty in the Department of the Gulf. S. O. 97, Department of the Gulf, June 7, 1877.

CORBUSIER, W. H., ASSISTANT SURGEON.—Assigned to duty at Chattanooga, Tenn. S. O. 111, Department of the South, June 5, 1877.

PHILADELPHIA, JULY 7, 1877.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF PERINEAL SECTION.

BY J. WM. WHITE, M.D.,

Surgeon to the Philadelphia Hospital.

Reported by J. Monro Murray, M.D.

GENTLEMEN,—J. H., colored, æt. 45, was admitted to the wards of this hospital a few weeks ago, suffering from a condition of affairs to which I now call your attention.

In general appearance he is emaciated, feeble, cachectic; his cheeks are sunken, his tongue, when protruded, is seen to be dark, coated, and tremulous; his countenance is anxious and expressive of suffering. On examination his heart and lungs are found to be healthy, pulse 105, no general abdominal tenderness and no tympany; pain on firm pressure over the hypogastrium. On elevating his scrotum there are seen about the peno-scrotal junction four small, depressed apertures, from which a muco-purulent secretion is flowing. On asking him to empty his bladder you observe a mixture of pus and urine issue from each of these fistulæ, and by questioning we elicit the following history, which the patient gives clearly and intelligently. About fifteen years ago he had several attacks of gonorrhœa; a few years later he noticed that he had some difficulty in making water, which difficulty, after a period of intemperate living, so rapidly increased that he went to a hospital. A medium-sized catheter was passed a few times, and he was discharged, with instructions to pass the instrument for himself occasionally. He left the city, taking a catheter with him, and soon afterwards had an attack of complete retention of urine; he made several ineffectual attempts to introduce the catheter, which was, according to his account, about No. 15 of the French scale. He gave himself a great deal of pain, and did not succeed in drawing off his urine, but some hours later a slight dribbling occurred, giving him temporary relief. In a day or two a swelling appeared in the perineum, suppurated, discharged spontaneously, and left the largest of the fistulæ which you see here. Since that time, some twelve or fourteen years ago, not one drop of urine has passed through the penis, the bladder emptying or partly emptying itself through the perineal openings. His general health has steadily decreased. His urine contains large quantities of pus, and consequently of albumen, and is strongly ammoniacal, but no tube-casts have been detected after several careful examinations.

Rapidly recalling the salient points, we find that they are as follows: Gonorrhœa, stricture (improperly treated by incomplete dilatation), probable formation of a false passage by the patient's attempts at catheterism, extravasation of urine, perineal abscess and fistula (followed by complete obliteration of the urethral canal from a deposit of cicatricial tissue), cystitis, and gradual exhaustion from long-continued irritative or suppurative fever.

The case is one of extreme interest for many reasons, to the principal of which I shall briefly direct your attention. In the first place it is instructive as a specimen of the possible sequelæ of the timid and ineffectual treatment of stricture which is too often adopted. To discharge as cured an ignorant patient with instructions to pass a No. 15 instrument upon himself, the normal calibre of his urethra being at least 28, is to ignore not only the more recent advances in urethral surgery, but even its first principles. The result also teaches the great danger of allowing such patients to use solid instruments even of 15 millimetres in circumference.

Strictures are most frequently situated at the sub-pubic curvature, as in this instance, and then awkwardness in the use of an instrument is especially dangerous. The resistance offered by the triangular ligament during micturition to the expansion of the urethra becomes a persistent cause of irritation when there is increased vascularity of the mucous membrane, as in gleet, and consequently determines in many cases the seat of contraction.

Never consider a patient with urethral stricture as *cured*, or even as out of danger, unless the instrument which can be passed into the bladder is fully equal to the normal calibre of the urethra. The cystitis and suppuration which have followed the imperfect emptying of the bladder through these very contracted openings may result from a much less interference with micturition,—a fact which should never be absent from your mind when you come to take charge of such cases.

Since the patient's admission to the hospital he has been put upon generous diet, with quinine, and a moderate amount of alcoholic stimulus. Repeated, careful, and patient efforts have been made to enter the

bladder through the normal channel; every variety of instrument has been used, the patient has been etherized, and the sittings have been as frequent and as prolonged as was at all consistent with his safety, but without result. You have probably heard surgeons remark that they had never failed to pass a bougie or catheter, and have, consequently, never had to resort to any very serious operation for the relief of stricture of the urethra. If their practice has been extensive, their pride in this circumstance is very excusable, and arises from the fact that patience and perseverance have been found to accomplish so much in many apparently hopeless cases. If this patient were able to pass any water whatever, even a single drop, through this stricture, I should feel certain that by time and trouble I could get into his bladder, and I would not now be justified in ceasing my attempts. But we have here a canal which has been hermetically sealed to the passage of fluids for at least twelve years, and the normal structures of which have probably been entirely obliterated. I am convinced that if success in this direction were possible, it would have been attained by the many efforts made by myself and colleagues, and therefore we may finally abandon the idea of relieving the patient in this manner. Our efforts to introduce a probe into the bladder through any of the fistulæ have also resulted in failure. The sinuses are small, tortuous, and through tissues thickened and hardened by plastic exudation.

The operation which, under these circumstances, seems most likely to ameliorate the patient's condition, is the one known as perineal section, and may be briefly described as follows: A large staff is passed down to the stricture; an incision is made in the median line of the perineum, the end of the staff is exposed by free incision through the constriction, and an attempt is then made to find the posterior portion of the urethra by careful dissection. If successful, the staff is passed along it into the bladder; if not, as is commonly the case, a new channel must be made through the brawny and indurated tissue and kept pervious by the retention or frequent passage of a catheter. The operation should be distinguished from that of external urethrotomy, which is done on a grooved staff in cases of *permeable* stricture.

The dangers attending this procedure are evident: urinary infiltration, hemorrhage, pyæmia, a variety of accidents, may carry off your patient; and the question arises, Is this man in a proper condition to undergo such an ordeal? The fact that his troubles are largely due to incomplete micturition, and that he needs especially a full, free outlet for the urine, has decided us in favor of the operation, the shock of which would not be appreciably greater than that of a free perineal opening, nor, indeed, than that of supra-pubic or rectal puncture of the bladder. These measures, however, are purely palliative, while by the successful performance of perineal section I may restore him to a comparatively healthy condition. It must be admitted that the prognosis is decidedly unfavorable; but the man is anxious for the operation; his life is almost unbearable at present, and could not be long protracted; there is at least a possibility of success; there is no evidence of any organic disease except that depending directly upon the urethral and cystic troubles, and there are instances of almost complete cure in even more unpromising cases.

[The operation was performed in the usual manner, and the entrance to the bladder was discovered after a long and troublesome dissection. The constricting bands were freely divided, and a No. 22 silver catheter was left in the bladder. There was no serious hemorrhage.]

The subsequent progress of the case was as follows:

The patient was given full doses of a mixture containing quinine, salicylic acid, and opium, and was placed upon extra diet. On the evening after the operation (March 24) he suddenly became delirious, jumped from the window of the ward (fortunately on the ground floor), and ran several hundred yards before he was overtaken. The catheter, which was held in place by tapes and adhesive strips, did not fall out. The following morning (March 25) he was entirely rational and in good spirits. Pulse, 88; respiration, 22; temperature, 99.4°.

March 26.—Slight accession of fever; great hypogastric tenderness; catheter withdrawn; warm hop-poultices applied over abdomen and changed every three hours; urine escaping freely through incision.

27th.—Pulse, 100; respiration, 16; temperature, 99.8°. Wound looking healthy; less pain; gave rectal injection of sweet-oil and soap-suds.

28th.—Pulse, 90; respiration, 18; temperature, 98.4°. Appetite good; no pain; bowels opened naturally.

29th.—Pulse, 89; respiration, 18; temperature, 98.2°.

Fearing a complete closure of the urinary channel by granulations, Dr. White re-introduced a catheter with some difficulty; immediately after its insertion, a small quantity of tolerably clear urine passed from it, and the amount was increased when the patient strained or when pressure was made over the hypogastrium. During the rest of the day he complained of severe pain. The three fistulæ which were not included in the incision had entirely closed at this time.

30th.—Pulse, 114; respiration, 30; temperature, 101°. A decided change for the worse; hypogastric and abdominal pain intense. Believing that the catheter was the cause of this exacerbation, it was at once withdrawn, when defervescence gradually took place. It was followed, however, by a period of intense depression, so that on April 1 his pulse was only 60, respiration 20, and temperature 97°. Carbonate of ammonium and whisky were freely given, and in about twenty-four hours he reacted strongly, the temperature rising to 102°, and the pulse to 130. After this there was a return to an almost normal state, and then for six or seven weeks his condition varied, but he gradually lost strength, and died May 19.

On Saturday, May 26, after reminding the class of the case, which had been before them several times during its progress, Dr. White made the following remarks:

The fatal termination of this case has given me an opportunity to illustrate its pathology, and to explain some symptoms the causes of which during life have been obscure. Let us briefly review the record of the case. We first notice a temporary intense delirium occurring suddenly within a few hours of the operation, and disappearing with equal suddenness. This was probably an instance of traumatic mania, a not uncommon complication of extensive operations and severe accidents. It generally, however, persists for a few days, and requires depletory measures for its removal, but in this case ceased spontaneously and almost immediately. There were no troublesome symptoms for two days, when hypogastric pain and abdominal tenderness came on, but were immediately relieved by the withdrawal of the catheter. Authorities differ as to the retention or non-retention of an instrument in the bladder after this operation. The danger of retention is chiefly cystitis; the dangers of non-retention are urinary infiltration from the greater exposure of a large absorbing surface, and also the possibility of a sudden closure by granulations or cicatrization of the posterior portion of the urethra which has just been discovered or tunnelled out. So far as the result goes, I regret exceedingly that in this case I suffered the instrument to remain in, and I also regret its re-introduction a few days later, to which many unfavorable symptoms seemed referable.

Let me at this point read you the notes of the post-mortem examination, and show you the penis, bladder, and prostate gland which I have here.

Autopsy, eighteen hours after death.—Body much emaciated; silver catheter No. 15 French passed to sub-pubic curvature meets with insurmountable resistance. One large opening in median line of perineum corresponding to the incision made at the time of operation; scars of three fistulæ near same region (entirely closed); just within the opening in the median line were the orifices of two separate fistulous tracts, one leading directly to the bladder, the other running off to the side, and communicating with a large ischio-rectal abscess, containing eight or ten ounces of pus and urine, completely surrounding the rectum and extending upwards as high as the promontory of the sacrum. No communication whatever existed between this abscess-cavity and the rectum; the wall between the two sinuses, one leading to the bladder and the other to the abscess, was also entirely impervious. On cutting down upon the end of the catheter, it was found surrounded by a dense mass of cicatricial tissue. The pelvic fascia was thickened, injected, and everywhere adherent. The recto-vesical pouch of peritoneum showed inflammatory changes, but there was no evidence of general peritonitis, and no pus was found in the abdominal cavity. The bladder was contracted, hypertrophied, ribbed; the mucous membrane thickened, intensely congested and eroded; the prostate gland was somewhat enlarged and indurated, but no false passages were found in it.

Now, were the ischio-rectal abscess and pelvic cellulitis, which were the cause of death, in any way attributable to surgical interference? I am inclined to think they were, and, on looking back now with the additional light thrown upon the case by the autopsy, I read it in this wise. The patient during his attempts at catheterization made a false passage leading into the ischio-rectal fossa. At the time of operation this was not noticed, or was mistaken for one of the urinary fistulæ. During my manipulations when re-introducing the catheter, I probably reopened the orifice of this sinus, which the post-mortem shows to be alongside of the one leading to the

bladder. That I did not *make* this sinus or false passage myself I knew from the following facts: my instrument, when introduced, was directly in the median line; its point was freely movable, the ribbed surfaces of the bladder could be felt, and urine issued from it after its insertion. At the next and at subsequent attempts at micturition urine found its way into this now patulous canal, thence into the ischio-rectal fossa, and, by its presence and decomposition, became a source of irritation, and finally of death. If I had let this man alone after the first withdrawal of the catheter it is highly probable that the sinus which was then closed would have remained so, and this accident would not have occurred; so, although of course my motives were good, I am compelled to believe the re-introduction of the catheter to have been an error of judgment.

Subsequent to this time the temperature sheet, which you see here, shows the daily recurrence of hot spells alternating with an almost normal temperature, and this regular zigzag line is almost pathognomonic of hectic or suppurative fever.

As a result of the existing pelvic cellulitis, he had extreme abdominal tenderness and tympany, and he also suffered from obstinate and distressing hiccough, probably caused by the distention of the abdomen. He had an occasional free evacuation of pus mixed with urine, particularly when he assumed the erect posture; this was due to an overflow from the abscess, which I have described to you, and which might possibly have been punctured per rectum with advantage. The patient, however, when this condition was suspected, was so utterly broken down that no interference was deemed justifiable, particularly as the emptying of the abscess-cavity was erroneously supposed to be nearly or quite perfect.

The case has in many ways been a most interesting one, and is full of instructive and important lessons; and, although I heartily regret its unfortunate termination, I am glad to have had an opportunity of presenting it to you in such detail and with such completeness.

Mr. Henry Smith has been appointed Professor of Systematic Surgery in King's College, London, in lieu of Mr. John Wood, resigned.

ORIGINAL COMMUNICATIONS.

STRANGULATED HERNIA, WITH CASES AND REMARKS UPON OPERATIVE PROCEDURE IN CASE OF DOUBTFUL DIAGNOSIS.

BY OSCAR H. ALLIS, M.D.,
Surgeon to the Presbyterian Hospital.

THE history of cases is an important but not always an interesting feature in medical articles; still, as in three of the following cases there was in each an error, either in the *diagnosis* or in *practice*, a proper decision can only be arrived at by quite fully stating them. I shall after each defend the course pursued, and at the same time point out the source of error. Such a course is, I think, a fair and honest way of presenting cases. "We all learn by our mistakes," but it is a sad commentary upon the high position of our profession that successes are often *published*, leaving others to repeat the *unpublished* mistakes.

Had the responsibility of the following cases rested solely upon my own decision, I still should feel it a duty to publish them; but as able and experienced physicians and surgeons were associated with me in them all, I am confident that the difficulty in the diagnosis or the reasons for the fatal or unfortunate delay will be accorded, even if it does not seem so plain from the narrative.

Case I.—John W., aged 59, Irish, married, healthy, a carpet-weaver. Two or three weeks previous to his attack of hernia had been considerably reduced by a persistent diarrhœa.

On Tuesday, September 29, went to market, purchased a bushel and a quarter of potatoes, and in attempting to carry them to the street-cars he experienced a sudden pain in the right groin. The pain was not immediately severe, and on his return home he went to the shop to work. The pain soon became severe, and he returned home.

The pain continued, and a surgeon (Dr. K.) was called in on the following day. He found nothing serious in the case, and did not return. On Thursday, a physician from a neighboring hospital was called in, who immediately recognized, *as he thought*, a hernia, obtained assistance, administered ether, and reduced the size of the tumor, but not to his entire satisfaction. As he could not see the case again he requested me to visit and take charge of it. I saw him on Thursday evening, October 1, sixty hours from the attack.

Condition since seizure.—There has been persistent pain in right groin since Tuesday

morning, vomiting more or less frequent from the first, no movement of the bowels, constant thirst, but fluids taken immediately vomited, colored with bile. Pain (at my visit) extreme; face anxious, pinched, pulse frequent and feeble, belly distended and tympanitic, tongue moist and heavily coated with brown fur.

On examining the suspected parts, I found the right testicle drawn up to the mouth of the inguinal canal, swollen to nearly twice its normal size, and so exquisitely sensitive as to preclude any but the most gentle handling. The other testis was atrophied. There was a slight swelling along the course of the inguinal canal. This swelling was continuous with the testicle, and seemed to be the inflamed cord.

On the following morning (Friday), I called in consultation Dr. K. (the one who first saw the case). He assured me that there was no evidence of a hernia at his first visit, but that the physician who had subsequently visited him had been making unsuccessful attempts to push a testicle up into the inguinal canal, and that the resulting orchitis was the efficient cause of the peritonitis and the concomitant symptoms.

Friday evening.—Bowels still unmoved, vomiting persistent, testis still retracted but less swollen and tender. Vomited matter dark, shreddy, no odor save that of whisky and beef-tea. Saturday, Dr. K. and myself met a third surgeon in consultation. The symptoms were all carefully rehearsed, and both left doubting the existence of hernia.

Sunday morning.—As I could not get the services of either of the above, and as the symptoms persisted, I called in two others, but with no better success. The case was one of peritonitis. Death the following night.

Autopsy.—A hernia of small intestine, about two feet from the cæcal extremity. The whole retained gut lies in the inguinal canal, and does not project beyond the external ring. The testicle (now of reduced size and apparently no larger than its fellow) lies at the entrance of the canal. It can be easily separated from the bowels, but in its swollen, tender condition, with the skin and fasciæ covering it, it would have been impossible to ascertain that fact. There is present general peritonitis. The gut above the hernia is greatly distended with fluid and gas; below it, it is empty. A probe can be passed along the side of the herniated bowel into the tunica vaginalis, showing that the hernia was of the so-called congenital variety.

Remarks.—Here was a case of a man, old, feeble, reduced by diarrhœa, injured by lifting, with local pain, vomiting, and obstipation, and the evidence of a physician that a hernia had been partly reduced under ether.

As an offset to this was the testimony of a surgeon of one of our principal hospitals, who saw the case upon the second day. He says there was no evidence of hernia, nor was the testicle retracted at the time of his visit, and it was his opinion that the physician who saw the case upon the following day (a recent graduate and an interne of one of our hospitals) had either mistaken a testicle for a rupture or had injured the former in attempting to reduce an imaginary hernia. He argued that the orchitis was due to rude manipulation, and that the peritonitis was the sequel of the orchitis.

The early vomiting, nausea, and obstipation might have proceeded from the orchitis,* and the persistent vomiting from the peritonitis; and these facts, taken with an important condition,—*i.e.* the retracted swollen testicle,—and no greater enlargement in the course of the inguinal canal than would attend an inflamed spermatic cord, seemed sufficient in the minds of all I called to see the case to outweigh the possibility of a hernia.

It seems to me, reviewing coolly as I can now all the circumstances of the case, that great injustice was done the hospital physician in not deeming him competent to discriminate between a hernia and a testicle, or to think that his testimony was not of first importance when he said that he partially reduced it. His testimony, coupled with the strain, the persistent vomiting, obstipation, and local pain, should have rendered an exploratory operation imperative.

Case II.—Miss O. B., aged 43, one of three at a birth, and the first of the three to die. About two years ago noticed a tumor in the right groin that had been produced by a cough. The *lump was always present;* was troubled with obstinate constipation for the year preceding her death.

On Thursday, July 22, 1877, Dr. L. was called to see the case. At the time of his visit her abdomen was distended and she was suffering from nausea and vomiting; pulse 80; skin cool and moist, and tongue slightly furred. An examination of the groin revealed a femoral hernia, that he was assured had been present for two years. She stated that her bowels had been freely moved by cathartic medicines upon the day previous. The tumor was quite firm and hard. The patient was dull and stupid, but she did not experience any unusual symptoms.

* Curling on the Testis, p. 216.

Bismuth and pepsin, and directions in regard to diet, were all that was prescribed.

Friday.—Patient has passed a comfortable night; nausea present, but no vomiting; slight pain about the epigastrium; no movement of the bowels. The patient seems brighter and more cheerful than upon previous visit.

Sunday—Patient has been vomiting violently since Friday (Dr. L. was not notified of the change in her condition); vomited matter evidently from upper bowel, though no fecal odor; bowels confined; belly distended; pain in region of umbilicus. Pain of distention often relieved by eructations. Pulse 100, patient exhausted; pressure on abdomen does not increase but rather relieves the pain. Hernial tumor not so large or hard as on previous visit. Patient has made no allusion to the tumor as being the cause of her trouble. Patient duller than at previous visits. Could easily be aroused, and was then perfectly conscious and intelligent. A bag of pounded ice was directed to be placed over the tumor, and I was asked to see the case with him in the evening. At my visit chloroform was administered, and when the patient became relaxed and taxis used, the tumor, which was not inflamed nor imbedded among glands, became soft and gurgled. This seemed to demonstrate that the gut was not firmly grasped in the ring or canal, and as there was evidence that the hernia was an old incarcerated one, no other measures were taken than to continue the ice locally.

Monday morning.—Saw the case with Dr. L. at 10 A.M. Had passed a pleasant night; looked quite bright; had not vomited since last visit, and felt refreshed by the night's rest. No evidence of local inflammation. Tumor soft, and does not complain when it is handled. Abdomen still greatly distended; bowels confined; eructations but no vomiting; is dull, and inclines to sleep, but can easily be aroused.

Monday, 4 P.M.—There has been no vomiting since the administration of the chloroform. Patient retains her nourishment and medicine. Bowels still distended and confined. Hands cold, pulse almost imperceptible. Has failed rapidly within a few hours. Death at 9 P.M. A short time previous to her death she vomited a great quantity of fluid.

Autopsy.—An old incarcerated hernia in state of gangrene.

Remarks.—In this case there was evidence of a hernia, and a history of its presence for the past two years. Hence the question for us to decide was, *Are the symptoms those of strangulation?* There was no evidence of local inflammation. The tissues over the tumor were normal, and no inflammation of the neighboring glands was apparent. The tumor grew soft and gurgled under taxis, giving us to believe that a passage was quite as possible as during the past years of incarceration. Her dull condition, which antedated the symptoms of strangulation, was not of course due to it; neither was it due to opiates, unless taken without the knowledge of her physician. To her dull condition may be assigned the cause for not recognizing the pain of constriction or the advancing peritonitis. She only complained of an uneasy distention, and said if this were relieved she would be well.

In this case the tympanitic distention, coupled with the presence of an old hernia, should have imperatively demanded an operation. It is highly probable that the *gaseous distention*, caused primarily by alimentary difficulty, *produced the constriction by dragging upon an incarcerated bowel.* There is no evidence of primary local inflammation, and our efforts at taxis established the fact that the tumor permitted of the passage of gas. *But the hourly increasing distention of the bowel produced a correspondingly greater traction upon the entangled gut, and rendered a passage impassable that had been pervious for two years.* I am not conscious that mention has been made of this condition of tympanitis in its special bearing upon old incarcerated hernia. It is a hypothesis that seems quite probable to me, and hence I have emphasized it for the consideration of those interested in this subject.

Case III.—Mrs. R., æt. 50, had borne children; active, in good health. About six months previous to the present condition had suffered from a strangulated hernia. In this instance the hernia (right femoral) had been constricted about twenty-four hours before her family physician was summoned. Vomiting and great local pain, obstipation, with a tumor, were the symptoms that led to the belief that a hernia was present; and on appropriate manipulation the pain and vomiting disappeared, but not the tumor. This was only partially reduced, and left the physician in doubt of the restoration of the gut until the fecal passages returned. A suspicious tumor remained for at least ten days, when it disappeared.

In March, 1876, she had a similar attack. The hernia came down while she was at work. She was unable to reduce it, and was obliged to quit work and go home. This occurred on Monday evening. She was seen on Tuesday, at 2 P.M., by the same physician. Vomiting, and great suffering referred to the femoral canal, with obstipation and a tumor, led him to suspect a second strangulation. The taxis without an anæsthetic was again employed,

but not satisfactorily. The tumor was only diminished in size. Still, the pain was relieved, and, thinking that the bowel, if unreduced, would return under the use of opium suppositories, they were prescribed. At his return in the evening of the same day he found her comfortable. On Wednesday he visited her. There were no other signs of unreduced bowel than the tumor, which, it will be remembered, persisted in the first instance. On Thursday the tumor had increased in size, and I was asked to see the case. It was now three days since the physician had applied taxis. The pulse was almost normal; the skin (to the hand) seemed natural; the face looked a little anxious, but no more so than under ordinary circumstances of sickness. There were no signs of peritonitis save a somewhat tympanitic but not tender abdomen. There was a tumor in the right femoral region as large as a flattened orange, of an irregular outline, nodular as if made up of enlarged glands, and red as if said glands were undergoing inflammatory softening. The enlargement was ascribed to the involvement and inflammation of the glands, and we (a surgeon, the family physician, and myself) deemed it well to delay what we all felt would be but an exploratory operation. On the following evening (Friday, about ninety-six hours from the first seizure) an operation was decided upon. The diagnosis was correct so far as the enlarged glands were concerned. The irregular outline and local inflammation were correctly ascribed to them, but buried among them was a hernia, consisting chiefly of omentum, with a small knuckle of intestine, both in an advanced stage of gangrene.

Remarks.—In this case there was vomiting and pain for eighteen hours, *i.e.*, up to the employment of taxis (on Tuesday). From that time to my first visit, *an interval of two days*, there had been no vomiting, and the skin, pulse, and general condition of the patient were not indicative of one suffering from a strangulated bowel.

Was the physician in error in employing and continuing the use of opium, when, as he says, he was morally certain that in his efforts at taxis he had not fully returned the bowel? I think he was, although in doing so he was following a line of treatment that has been prescribed for a century. The instruction that has been found so often salutary is, "If the first efforts at taxis are unsuccessful, give a full anodyne, apply cold locally, and return, before the effect of the morphia has passed off, and make a second effort. If then the result at taxis is unsuccessful, the consideration of more effective measures is in order." The error was not in employing opium, but *in continuing* its use. The effects of a full dose of opium would have measurably passed off in twelve hours, and then the patient would have again become conscious of her condition. As it was, a grain opium suppository every second or third hour caused her to pass through the successive steps of local and general peritonitis and gangrene without exciting a suspicion of her critical condition.

Case IV.—Mrs. F., æt. 58, a widow. Dr. N., her family physician, was called to see her at 2 A.M. of Friday, November 24, 1876. The attack was similar to previous colicky seizures, and morphia was administered for its relief. Vomiting commenced about ten hours later, and persisted until evening, when the suspicions of Dr. N. were aroused, an investigation made, and hernia of the right femoral region detected. Efforts were made, under ether, to reduce it, with apparent success. On Saturday, the symptoms persisting, copious enemata were repeatedly administered. These brought away some fecal matter, and afforded temporary relief. About eight hours after the last enema the patient passed quite a copious liquid stool, with considerable flatus, and felt immediate and almost complete relief. Sunday morning the symptoms of obstruction were unmistakable, and I was sent for. I did not see the case until 5 P.M. Operated; bowel livid and rapidly approaching gangrene.

Hardly had she recovered from the effects of the anæsthetic when she was seized with excruciating pain about the heart and between the shoulders, and vomited as before. A hypodermic gave her complete relief. About midnight she had a slight movement of the bowels, and expressed herself as without an unpleasant symptom.

Pain about the heart returned on the following day, and she expired eighteen hours after the operation.

Remarks.—In this case the unusual feature is that although the enemata seem to have been returned almost immediately after they were administered, and that too without much relief, an apparently natural evacuation, accompanied with flatus and almost complete relief, occurred about eight hours after the last one had been administered. Nothing can in this case be laid to the treatment, as the attending physician had recommended an operation upon the day following the strangulation. It was not until after it was too late that consent was given.

It is further worthy of note that there was no previous history of hernia, and no unusual straining to provoke one. It

seems to have attracted her attention first at midnight. If so, this is the second case I have known in which the patient was aroused from sleep with strangulated hernia, having retired without any unusual symptoms.

The *diagnosis* of intestinal obstruction is one of the obscurest and often one of the most unsatisfactory that the surgeon is called upon to make. Dr. Hunt, of the Pennsylvania Hospital, says of hernia, "I have seen the best and worst of surgery connected with it;" and George Pollock says, "The causes of intestinal obstruction are so various, its occurrence is fraught with so much danger, its symptoms are so severe and distressing, its diagnosis is so obscure, and its treatment is so uncertain and so often unsuccessful," that he enters upon the subject with extreme reluctance.

In a recent treatise on surgery, the author gives the following diagnostic symptoms of strangulated hernia—I have placed his words in italics. He says, "*Strangulation is marked by total and usually sudden constipation.*" This is true, and is always possible, in point of fact; but in Case II. the bowels had been freely opened by cathartic medicines *the day before* she sent for her physician, and hence the fact of no movement of the bowels that day, or for two or three days, is not significant. Habitual constipation is so frequent, and persons insensible to unusual amounts of cathartic medicines are so numerous, that this symptom is of only secondary value. One of my patients says that she habitually goes three weeks without a movement of the bowels. This is unusual, as she is of active habit. Another, an old man, confined to his bed, goes an equal time.

In Case No. IV. the patient had quite a natural movement, with flatus and subsidence of pain. Of course this was from the bowel below the constriction, but is worthy of note, lest it mislead in a similar case.

"*Urgent vomiting, at first merely of food, then of bile-stained matter, next of the contents of the small intestines, and finally of fæces.*"

In Case No. III. there was no vomiting from Tuesday until Friday night, though the gut was constricted and gangrenous at the time of operation. The opium given might have controlled the vomiting, yet there was not enough administered to give a bystander the impression that she was under its influence.

The early setting in of vomiting, and its urgency, will, I think, depend upon the tightness of the constriction, and the character of the vomiting will depend upon the region of the bowel that is constricted.

In Case No. I. the vomiting was continuous for five days, but at no time of a suspicious odor, neither is it possible to have the suspicious odor with "fæces," unless the constriction is below the fecal-forming function of the intestine. In only one of the four cases was there fecal vomiting. Besides, fecal vomiting may be present in peritonitis, and thus this symptom of vomiting, *and even fecal vomiting*, a symptom that is associated with manifold diseases, contributes nothing positive to the diagnosis.

"*There is great distress and pain, usually in the tumor, and almost always in the neighborhood of the umbilicus, frequent irritable pulse, dry and brown tongue, tympanitis, and often considerable tenderness of the abdomen and distress of countenance.*"

With the exception of the allusion to the pain in the tumor, all the above symptoms are true of incipient peritonitis, and hence if there is no tumor present, as in Case I., the diagnosis of strangulated hernia is not clear.

His remaining points in the diagnosis relate to the advanced stage of the constriction, and these resemble the inflammatory stage of peritonitis and the typhoid condition of gangrene.

It is to the *early*, not the *remote*, symptoms in all cases of strangulation that one must look for reliable data. The instant general peritonitis sets in, the greater masks the lesser local pain, and the tympanitic distress renders the patient often oblivious to active inflammatory changes. The history of the first twenty-four hours has therefore a far greater value than subsequent revelations, and these hours should be most carefully and critically interrogated and their information constantly kept in mind.

The symptom of tympanitis, which is always decidedly pronounced in intestinal obstruction, is valuable, but it does not enable us to determine positively that the obstruction is due to hernia.

As careful as are the authors in their descriptions and diagnostic features of this distressing disease, it yet remains to point out symptoms that will warrant surgical

interference in cases where there is *no tumor* present. *There are no infallible symptoms*, and, though the strongest assurance may rest in the mind of the attending physician of the true condition of the case, still he can only say, "I think such is the case."

What then is to be done? Is the case to be abandoned? We certainly do abandon it when we take no measures to determine positively the suspected injury. With vomiting or nausea, with local pain, with obstipation and distended abdomen, especially when these symptoms appear suddenly, we have good reasons for suspecting a strangulated bowel; and if these symptoms remain unexplained for twenty-four hours an exploratory operation is not merely justifiable, but it is demanded. In Case No. I. such a procedure would have enabled me to map out the relation of the testicle and cord to the canal, and to have detected the gut, that was confined wholly within it. No harm would have been done the inflamed testicle; on the contrary, the depletion and removal of the tense overlying structures would have been salutary. In Case No. III. the operation was finally undertaken in the midst of doubt, and our gratification at finding the diagnosis a lucky one was more than counterbalanced by the chagrin of seeing the bowel in a state of gangrene.

If an exploratory operation were a grave affair or would diminish the chances of recovery, it would not be suggested in this place. But such is not the case. Let the hidden nature of the disease be what it may, the cutting through the skin and overlying fascia cannot prove a serious complication. Such a course is hardly more than opening a bubo.

I am well aware that such a course would meet with much opposition, but the inevitable consequences of strangulation, the fearful death that may be averted, the satisfaction of having done one's full duty, is a great reward, and far outweighs the unjust and vicious criticism that is sure to follow from the envious and ignorant in case of faulty diagnosis.

PHILADELPHIA, 1328 SPRUCE STREET, May, 1877.

DR. FREDERICK T. ROBERTS and Dr. W. R. Gowers have been appointed Assistant Professors of Clinical Medicine by the Council of University College, London.

REMARKS ON A COMPARISON OF THE WEATHER REPORTS WITH THE CATARRHAL DISEASES OF CHILDREN, ETC.

From a paper read before the Philadelphia Obstetrical Society

BY JOHN M. KEATING, M.D.,

Physician to the Philadelphia Hospital, Assistant Physician to the Children's Hospital, etc.

IN attempting to establish a new system for the comparison of disease with that element of its causation dependent upon weather changes, I but carry out an idea suggested by the vast accumulation of case-reports in our city dispensaries, which have hitherto been useless and cumbersome.

That the mortality statistics are by no means the correct exponents of the extent of disease is obvious, partly on account of epidemic influences, which intensify or diminish the malignity of the epidemic, and partly on account of the comparatively low mortality which usually attends disease of the catarrhal kind. The utter unreliability of the diagnosis must be also taken into consideration. The idea, originating, I believe, with the Massachusetts Board of Health, of issuing to the profession headings of the different ordinary acute diseases, with a request to fill up with the required data, was excellent in theory, but has not brought in the full statistics that were desired.

I have thought that a more accurate way of accomplishing this end was to tabulate from the dispensary books. In our large cities thousands attend these institutions yearly,—chronic cases in adults and acute in children. To those who are interested in this department of medical research I would suggest the establishment of a regular monthly report from all our dispensaries and hospitals, simply giving the age, sex, condition of life, diagnosis, and, what is particularly desirable, the date of attack as accurately as it can be determined. These reports compared with those of the Signal Service will surely make most valuable material for the advancement of hygiene and prophylactic medicine.

During the months of July, August, September, and October, of 1876, I had an opportunity of noting myself the cases coming for advice to the dispensary of the Children's Hospital, and, with some other records furnished by my colleagues of the staff, I have prepared a chart, in the hope that the subject will appear sufficiently interest-

ing to attract attention. The children for the most part were under seven years of age. They were brought from all parts of the city, and belong to that class whose position in life subjected them to vicissitudes of temperature without the necessary means of protection; in fact made them living thermometers and barometers. It may be remembered that in the early summer the average heat was so intense and the humidity so low that the mortality among children was greater than for many previous years. During the four months I selected all the cases of cholera infantum and entero-colitis, and classified them under the head *Diarrhœa*; the catarrhal, laryngeal, and bronchial affections, including a few cases of pneumonia, were classed as *Bronchitis*.

The great difficulty arising at the outset of such a series of observations comes from the utter impossibility in many cases to date the exact period of attack, the parents counting back to events (as the funerals of friends, and such like), and not to days, when questioned. I have found that for the intestinal cases an average of four days from the date of admittance will reach pretty closely the date required. I have therefore allotted to each day the number of cases which occurred on that day, and compared them with the diagram representing the report obtained from the United States Signal Service for the same day.

The bronchitis line from the Children's Hospital comprises three hundred and sixteen cases. Of these one hundred and fifty-one were boys, and the remainder (one hundred and seventy-five) were girls.

From the dispensary at the Episcopal Hospital, the report of which was sent me by Dr. Robert M. Smith, I have additional data. During the four months one hundred and seventy-seven cases in children applied. Of these, thirty-five appeared in July; thirty-two in August; forty-eight in September; sixty-two in October. Bronchitis seems to have been prevalent during all the months, but the number of cases gradually increased, reaching its maximum in October. This fact is also borne out to some extent by the city mortality list, with the exception that this affection seemed more fatal, proportionately, in early summer than in the fall.

From the Children's Hospital I note two hundred and thirty-six cases of diarrhœa. Of these, one hundred and thirty-three were girls, one hundred and three boys. At the Episcopal Hospital there were one hundred and fifty-eight cases,—sixty-eight in July, fifty-seven in August, twenty in September, thirteen in October. The city mortality coincides to some extent with this, with the exception that a far greater mortality is noted for July.

Comparing these data with the weather reports of the Signal Service, I find that a persistent high temperature, with comparatively slight difference in the maximum and minimum table, with low average humidity,—in other words, persistent dry hot weather,—will coincide with the report of the diarrhœa cases; and when these conditions subside, the number of cases will also diminish, and the number of deaths will disproportionately decrease. On the other hand, as the mean temperature reaches its lowest point, and the greatest difference exists between the highest and the lowest daily record of the thermometer, the number of bronchitis cases reaches its maximum. Changeable weather in point of temperature alone seems to favor the increase of pulmonary catarrh. My observations scarcely cover sufficient time to draw from them any definite conclusions. If more extensive records hereafter bear out the remarkable coincidences which these observations show, they will prove the importance of more perfect hygienic measures for the prevention of those diseases which result in the frightful mortality among children during the summer months.

Here arises the question of treatment of the diarrhœa, which is the most important. Unquestionably, if these statements are correct, medicinal treatment will yield comparatively poor results. Our main reliance would be change of air, and more temperate atmospheric surroundings. But where such cannot be attained, certainly our endeavor should be to exclude the obnoxious influences as far as is possible.

We all know what wonderful changes are brought about by taking children to the sea-shore in an almost moribund state, where medicine and change of diet have been ineffectual.

In presenting this résumé of cases I cannot but feel assured that all who glance at it will think with me that, in the aggregate, treatment has been of little avail. Individual cases may have recovered, and

credit given to the medicines used, but certainly the general average of deaths has been the same, the mortality curve on the chart bearing a definite proportion to the number of cases presenting themselves. Seeing how utterly useless medicinal treatment was in many cases, I was led to adopt an altogether different method, and the success which attended its use, in those cases where my instructions were thoroughly carried out, warrants me to call upon the profession to test its full value during the coming campaign, and report for or against it.

In the first place, I abandon in the first stage of the attack the *absolute* milk diet, particularly mother's milk, and rely instead on a weak preparation of condensed milk, diluted to suit the age of the child, containing, as may be required, either lime-water or (preferably) salicylic acid or malt, and upon fresh meat juice. The juice should be extracted from fresh meat, and given in tablespoonful doses twice or three times a day, according to the age of the child. The child should be lightly clothed. Every night and morning I require the child to be rubbed from head to foot with cod-liver oil. The more advanced the case,—that is, the more choleraic the stools,—the more essential does this rubbing become, in the armpits, on the belly, in the groins, until the surface is thoroughly greased, and then the child is wrapped in an old, thin flannel blanket, and allowed to enjoy its greasy bath for about an hour. The surplus oil is then rubbed off and the child dressed. Washing is to be done each morning after waking, and before the oil rub is given.

I have seen, in the short experience of four years, the most remarkable results follow this treatment when it has been conscientiously carried out. The treatment is a most rational one. We have seen that the summer complaints of children depend entirely upon high temperature (excluding, of course, those few where indigestion from green fruit is the cause), and consequently anything that will depress the temperature or exclude its pernicious influence will be curative or preventive. Olive oil was used by the ancients for anointing, but it seems more reasonable to use an animal oil, which is nutritive at the same time, and consequently serves two purposes. We know that oily matter is but slightly changed in its preparation for assimilation, that its accumulation throughout the body acts as a protection, and our main endeavor should be to add to the supply as often as the increase of the danger against which it guards demands its presence. The odor of cod oil has been objected to, and it is certainly a most serious objection. To remedy this, Messrs. McKelway & Borell, of this city, have succeeded in making a deodorized preparation, which seems to serve the purpose admirably.

I do not wish it understood, however, that I am entirely opposed to the use of medicines. The occasional use of acid, or at other times of alkalies, corrects the character of the passages, and often regulates them, and in mild cases they will be found amply sufficient. But I must confess that it seems useless to attempt to treat the effects when the cause is allowed to continue, to give astringents and opiates to check a catarrh when high temperature or sudden changes are allowed to exert their evil influences.

I feel confident that the most useful and important work to result from the reports of the Signal Service will be to warn us of sudden changes, for our self-protection, and guard us against extremes which to some are fatal.

A CASE OF POISONING FROM OIL OF TANSY; RECOVERY.

BY A. E. SPAULDING, M.D.,

Winnebago, Ill.

ON Friday, May 12, at 12 o'clock M., I was summoned in haste to see Mrs. F., æt. 21, who, it was stated, was "having a fit." I found her lying on the floor, conscious, and vomiting. While inquiring of those present the character of the convulsion, the patient uttered a loud scream, powerful tonic contraction of the flexor muscles came on, the forearms were drawn forcibly against the thorax, face deeply congested and livid, foamy saliva was ejected from the mouth, eyes were wide open, and remained so during the convulsion, which lasted from one to two minutes. When the convulsion ceased, the patient vomited, the contents of the stomach emitting a peculiar odor. Upon inquiry, I learned from the husband that she had taken a teaspoonful of oil of tansy at nine o'clock A.M., for the purpose of bringing on her menses. I immediately administered an emetic of sulph. copper, which produced free vomiting. The patient complained of headache, but had no more

convulsions. I have thought this case deserving of report on account of the extent to which tansy is used as a household remedy in suppressed menstruation, and that the physician may be aware of the symptoms produced by an overdose. A fatal case of poisoning from one drachm of oil of tansy is recorded in the *American Journal of the Medical Sciences*, xvi. 256, death being preceded by coma and violent convulsions.

TRANSLATIONS.

Gastrotomy. — M. Lannelogue (*Bull. Gén. de Thérap.*, 1877, p. 370) reports the following case. A man 59 years of age, who had previously enjoyed good health, was suddenly attacked with pain on deglutition, which grew progressively worse until at the end of six months only a few spoonfuls of milk could be swallowed. About the middle of the thoracic portion of the œsophagus a very resistant and immovable object could be perceived: emaciation was extreme, but there was no cachectic tint. All the other organs were healthy. In order to prevent the death of the patient from inanition, gastrotomy by Verneuil's operation was performed (Acad. de Méd., Oct. 31, 1876). The operation was not followed by any unfavorable symptoms,—no pains, no inflammation. Alimentation was carried on by means of the fistula, which, however, allowed a notable quantity of liquid to escape. Subsequently thoracic complications occurred, which carried off the patient the twenty-sixth day after the operation. The autopsy showed primary lesion (epithelioma) of the œsophagus, which, having suppurated and burst into one of the bronchial tubes, brought about death by asphyxia. The stomach, however, remained solidly adherent to the abdominal wall, the gastric fistula being well formed, and the operation completely successful. M. Lannelogue draws the following conclusions: 1. Gastrotomy is a rational operation, based on the results of experiments upon animals and men. 2. It is always indicated when death by inanition is threatened as a result of aphagia. 3. Verneuil's procedures should be followed closely, the stomach not being opened until it has been firmly attached to the abdominal walls by numerous fine sutures, so as to avoid leakage into the peritoneal cavity. Some modifications in point of detail should be practised: these consist—4. In not passing below the inferior border of the eighth costal cartilage in the incision of the integuments, so as to reach more directly the anterior walls of the stomach, which in these patients is always shrivelled and retracted towards the diaphragm on account of long abstinence. 5. In opening the anterior wall of the stomach in the neighborhood of the lesser curvature, so that the various liquids secreted or injected shall always have sufficient room to accumulate without running out. 6. Not to apply either hæmostatic pincers or fastening threads for the canula to the borders of the wound, for fear of tearing or mortification, which would enlarge the fistula and render the escape of fluids easier. X.

Solubility of Quinine Salts.—At a recent sitting of the *Société de Médecine Pratique* (*La France Méd.*, 1877, p. 358), M. Yvon stated the results of his experiments upon the salts of quinine. Those used at present for hypodermic injection are somewhat insoluble, and require the addition of acid, which irritates the tissues locally and renders their absorption less easy. The sulphate of quinine dissolved in acidulated water and the bromhydrate of quinine are no exceptions. Lactate of quinine is less objectionable in this respect, being soluble in nine parts of water. The solubility of bromhydrate of quinine is but little less than that of the lactate, it is true, but the latter contains less acid, which is advantageous as regards its therapeutic action. M. Yvon has also made investigations regarding the elimination of quinine by the kidneys: this is always considerable, and, as M. Guyochin has shown, is in the form of quinoidine. X.

Bilateral Lithotomy with the Extraction of Thirty-two Calculi.— M. Alfaro reports (*Anales de la Asociacion Larrey*, Mexico, ii. 12, 185) a case of bilateral lithotomy, after the method of Dupuytren, in a man aged 67 years, who had in addition to the vesical trouble three herniæ,—two inguinal and an umbilical,—and hemorrhoids. The operation presented no difficulty, and there were extracted, without any trouble, thirty-two calculi composed of uric acid, urate of lime, etc., which weighed altogether a little over one ounce when dry. By the twentieth day the wound had healed entirely, and the patient passed urine by the meatus without difficulty. J. B. R.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JULY 7, 1877.

EDITORIAL.

HOMŒOPATHY.

WHILST, under the shadow of the Upas-tree of imperfect education, homœopathy flourishes in this country, in England and upon the continent of Europe it is being strangled by the growth of knowledge within and without the profession. A very noteworthy evidence of this is furnished by a letter recently published in the London *Lancet*, which, from its importance, we republish here almost in full. The circumstances under which this epistle was written are as follows. Dr. Wyld is vice-president of the Homœopathic Association of Great Britain, and in a semi-official manner called on Dr. B. W. Richardson, in order if possible to bring about a reconciliation between the two "schools" of medicine. Dr. Richardson asked him to put the statements he made into writing, and a few days later received a letter from him. The first portion of the letter recounts the expulsion of the homœopaths by the British Medical Association. We omit this, but give the remainder verbatim:

"Since 1851, however, great changes have taken place in this country on both sides of the medical question. Many men have arisen in the ranks of medicine who have renounced all the heroics of the past in the treatment of acute disease, while the so-called homœopathists have, on their side, almost entirely abandoned the use of globules, and have substituted doses in a tangible form, their rule for the dose being, in effect, to give a dose sufficiently large to effect its purpose, but not so large as to discomfort or weaken the patient. Further, we find that, whereas the early homœopathists denounced all auxiliaries in the treatment of disease, it is now the practice to make frequent use of all remedies of a simple kind, such as occasional aperients, anodynes, opiates, anæsthetics, tonics, galvanism, hydropathy, Turkish baths, and mineral waters. In short, we define our practice as rational medicine, including the application of the law of contraries, but *plus* the application of the law of similars.

"Beyond all question the abandonment of heroics on the one side, and the adoption of tangible remedies on the other side, has, to common observation, brought the two schools into a very close juxtaposition, and the question, therefore, presents itself, 'Can that ostracism which might by some be considered justifiable in 1851 hold good with any justice under the altered circumstances which now exist?'

"To this question you may reply, 'We do not ostracize you because you prescribe medicines according to a specific rule, nor because you prescribe them in an unusual form, but we deny you professional intercourse because you proclaim yourselves sectarians, and by means of books, journals, societies, and hospitals, advertise yourselves homœopathists.'

"To this we answer, that we do not desire so to publish ourselves; we do not write homœopathists on our door-plates; many of our best books eliminate the name homœopathy from the title-page; and, as a recent example, a large number of our body have objected, in a memorial, to the title '*Homœopathic* School.'

"We say, admit us on equal terms to your medical societies and to the pages of your journals, and all sectarianism will begin from that day to decline, and this, I believe, will ultimately lead to the abandonment of all sectarian societies, journals, and hospitals. In a word, we demand the same liberty of opinion in medicine as in religion or politics, and an amalgamation with the great body of the profession on equal terms. If this were granted, we can see solid advantages to the profession on all sides, an increase in the amenities and dignity of medical life, and a higher professional status for all in the estimation of the public.

"To recapitulate. We admit, First, that the views expressed by Hahnemann are often extravagant and incorrect. Secondly, that Hippocrates was right when he said, 'Some diseases are best treated by similars, and some

by contraries,' and therefore it is unwise and incorrect to assume the title homœopathist. Thirdly, that although many believe that the action of the infinitesimal in nature can be demonstrated, its use in medicine is practically, by a large number in this country, all but abandoned.

"On these grounds, and maintaining that we are legally qualified medical men and gentlemen, we claim the right of admission to your medical societies and to professional intercourse with the entire medical body.

"In conclusion, I must beg to remark that, although this letter must be regarded as non-official, the sentiments it expresses are, I believe, held by a large number of our body.

"Believe me, yours sincerely,

"GEORGE WYLD, M.D."

This letter has drawn out an angry rejoinder from the president of the Homœopathic Association. It would seem, therefore, that Dr. Wyld's frankness is not relished by all of his colleagues. It is further stated that the Association is divided into two increasingly hostile factions, the one desirous of professing, if not of actually practising, Hahnemannism, the other intent upon honesty of profession. It would seem inevitable that as the years go by the breach should widen until the parties could not coexist. The regular profession in Great Britain is no doubt willing to grant liberty of opinions to the fullest extent. In this country the code says nothing about homœopathy, but forbids consultation with those who hold an exclusive dogma; and any person who would publish or subscribe to the doctrines enunciated by Dr. Wyld would certainly not come within the pale of the taboo. No regular medical association could, compatibly with its own dignity, receive any coequal association of medical men in a body; but the British Medical Association or any of our organic societies might very well receive a man who would subscribe to the above letter, whatever the past record of such an individual upon the homœopathic question might be. The true position of our societies is to be found in the assertion, We are not exclusive, but you who subscribe to an exclusive dogma are so, and whenever you will abandon this exclusiveness we will receive you by individual election, precisely as all of our own members have been received,—one by one.

THERE is one point in the above letter we want to call attention to, because it substantiates the one unanswerable refutation of homœopathy, and because the text shows how little the force of this refutation is known or understood. It seems to us that all other reasoning upon the subject should be abandoned, and this one line of argument steadfastly kept before the profession and the public.

A law of nature is absolute, unchanging and unchangeable, always operative, always tending to produce the one effect. Thus, the earth always draws towards itself: if it was found that sometimes it drew towards itself, sometimes repelled, it would be proven that the law of gravitation does not exist, but that the attraction and the repulsion have their origin in some other law, electrical or otherwise. Now, in the letter we read of the law of similars and the law of dissimilars. This is an impossible thing in the economy of nature. We repeat, two absolutely antagonistic or opposite laws cannot exist, and when it is asserted that laws of this character do exist such laws must be apparent, and not real: behind them there must be some law which is supreme, invariable, and which, in its action, may give seeming but not real contradiction.

The cause of the difficulty and of the apparent paradox in the case under consideration is that pathological conditions and symptoms have been confounded as one, whereas they are entirely different. Thus, diarrhœa may depend upon excessive irritation of the bowels; then a sedative like opium is given, and the law of dissimilars apparently operates; or diarrhœa may

depend upon relaxation; then a stimulant like veratrum album may in small doses cure, although in large doses it purges violently by irritation; here the law of similars apparently asserts itself. Putting the same thing in another form, excessive irritation may produce diarrhœa, opium stops the flow under the so-called law of similars, but excessive irritation may produce constipation, and opium increases the flow apparently in obedience to the law of dissimilars. It seems to us as plain as black is black, that these and innumerable other examples which might be adduced show that it is not the symptom but the condition which must be treated, and that the so-called laws of similars and dissimilars are not laws of nature, but fictions of the imagination, bred of ignorance and maintained by prejudice and fraud.

CORRESPONDENCE.

LONDON LETTER.

THE season for societies has now closed, and the profession is engaged in pushing practice during the remainder of one of the dullest social seasons ever known. In addition to the general depression, the weather has been dark and sunless, or at other times sunny with a trying east wind, which was very objectionable to the gouty, the rheumatic, and those subject to bronchitis. If the season had been as late in the year when Charles II. hid himself after his defeat by Cromwell at Worcester as it is this year, the foliage of that famous oak-tree would scarcely have effectually concealed him; and there is no telling how such a fact might have led to very important issues. This weather has had little effect upon the progress of smallpox, for there are at present in the Metropolitan Asylum District Hospitals no less than 964 patients, so that the gentleman whom I mentioned in my last letter as bewailing its decline, as interfering with his therapeutic projects, was a little premature in his sorrowing. A powerful letter from the acting editor of the *Lancet*—in his private name, however—appeared in the *Daily News* a day or two ago, in which he showed that British legislators were anxious about the welfare of cattle, but could spare no time from their pursuit of party to consider the presence in our midst of a preventable disease which was slaying some seventy-five per week and disfiguring hundreds of others. The attention to sanitary matters which the present government so loudly vaunted when striving to come into power has not been given: indeed, no pretence has been made of attempting to keep their promises in this respect. The unfair way in which the Anti-Vivisection Act is being worked by them was brought before the General Medical Council by a letter from one of the secretaries of the new Physiological Society. No less than nine well-known physiologists having complied with the provisions of the act and sent up proper certificates, etc., found themselves either in the position of being simply refused their licenses or having them so delayed as to seriously interfere with their object. Had they been nine publicans who had been treated thus, the Commons House of Westminster before now would have rung with indignant speeches from several of its beer-born members. But matters of health and sanitation are said to be purely medical matters, and thus disease is left to be fought by those whose livelihood depends upon its presence, while those who furnish the patients seem to think it is no business of theirs. Such being the case, it is no matter for surprise that the progress of sanitary science is as slow as it is: it redounds to the credit of the profession that any progress is made at all.

The advantages of hospitals for the poor are so widely recognized that an attempt has been set upon foot to provide several hospitals if possible, and one at least, for the reception of middle-class patients who could pay so much a week for their residence there, out of which the medical officers could receive some remuneration.

London houses are not arranged with all care to the possibility of sickness; they are filled and worked on the supposition that every inmate will remain not only well, but filled with energy. It is only in the mansions of the wealthy that suitable rooms and sufficient attendance for sick persons are attainable at all. Even in good streets a room capable of being converted into a sick-room, with a sufficiency of ventilation, etc., is scarcely ever contemplated; and in the great majority of instances such an idea never floats across the mental horizon of the inmates even temporarily. The matter of suitable accommodation for middle-class persons is at last brought before the notice of the public, and a meeting was held the other day under the presidency of the Lord Mayor to consider the subject. It is no longer thought sufficient to provide sick persons with drugs, and to trust them to the affectionate solicitude of friends, well meaning, but commonly utterly ignorant of nursing, and consequently often doing as much mischief as good; or, as often happens, to such attention as may be furnished by overworked domestics, afraid of all sorts of potential dangers: it is held that skilled nursing is essential. Now, of course,

there is no space in ordinary houses for a nurse, and even a trained nurse cannot watch night and day forever, but must have her hours of rest, so that the need for such hospitals is urgent enough, and the matter important enough to warrant attention being given to it. Probably the need exists elsewhere as well as in London, and is not confined to this continent. Considering how trying the modern race for wealth and position is, and the increased risk of sickness engendered thereby, the question is one which comes home to all, enterprising young men especially, as well members of our profession as others. Even to the healthiest and strongest the question often makes itself prominent, "What should I do if overtaken by illness?" And what would have to be done in many cases is not pleasant matter for thought, nor a cheerful subject for contemplation. The poor inmate of a general hospital then becomes an object of envy, and the careful attention of a skilled nurse, together with the conveniences of a sick-room, are sighed for by those who feel that at present no such arrangements are feasible in their case.

On Saturday, May 26, a distinguished assemblage met in the gardens of Prince's Street, Edinburgh, to witness the unveiling of a bronze statue of the late Sir James Young Simpson, Professor of Midwifery in the University of Edinburgh. Lady Galloway unveiled the statue. Dr. Wood, an old and cherished friend of the late professor, made the presentation on behalf of the Committee of Subscribers, a task which was to have been performed by the late Earl of Dalhousie had he been still alive to do it. With conscious pride in his profession at large and his late friend in particular, Dr. Wood pointed with an intelligible satisfaction to this public recognition of the worth of the deceased baronet. Almost under the shadow of the mighty memorial raised to Scotland's greatest author, Scott, alongside the statues of the well-known Christopher North and of Allan Ramsay, the poetical barber, whose pastorals have made the glens round Edinburgh of world-wide fame, now stands a monument of one who held an honored place in the heart of every person of Scottish birth. Sir James Simpson was a national favorite, and the most personally popular man in Scotland of his day. As Dr. Wood said, "It will show to all the rising generation how an obscure tradesman, with neither station nor money, by the talents with which God had endowed him, and an energy and perseverance without which genius so often fails, could climb to a very high position, and live honored and die lamented."

Hard-headed as the Scotch are, they possess, well hidden away, a lump of solid sentiment; and every Scotchman feels a thrill of pride in the ambitious baker's boy who climbed to be a university professor and a baronet, and in the national educational arrangements which made such a progress feasible. He tells with proud satisfaction how the tradesman's boy worked his way, how he took short-hand reports at nights in order to scrape together the fees requisite for his college course. The fight betwixt young Simpson, at nine-and-twenty, and a well-known Dublin professor is still fresh in their memory; and the town council of Edinburgh know well that their selection of their townsman on that occasion to the vacant chair of midwifery has always been held to be a set-off against a lot of blundering and no little iniquity. And yet it was by an accident that Simpson was reserved for his distinguished career. When he had passed his final examination and become a medical man, straitened means compelled him to look about at once for some method of maintaining himself, and he tried unsuccessfully for a small parochial appointment on the banks of the Clyde. Disappointed, he returned to Edinburgh; and how keen his disappointment was may be estimated by the fact that in his later years, on a public occasion, he declared that this failure gave him a keener sense of chagrin than anything that ever occurred to him after. In this forlorn state he was enabled by the sympathy of a professor to maintain an existence in the university, where his abilities soon earned for him a place amidst the worthies of his native land. The most distinguished persons were his patients, and his name was familiar to the medical students in every country. And now, a few years after he has passed away, his admirers have subscribed more than £5000 to keep his memory fresh and to place a memorial of him alongside the great ones of their country. The Lord Provost, in accepting the gift, pointed to the statue of another pioneer, of a different kind, but of whom Scotland is equally proud, the enthusiastic and high-souled cotton-spinner, who minded his loom with his book before him; and also to that of another medical man,—Dr. Livingstone, the African explorer. There they stand, an honor alike to their country and their profession, to cheer on many another Scotch laddie to do all that lies in his power and to make the best use of the talents with which he is endowed.

The question of the responsibility of epileptics for acts of violence, often homicidal, perpetrated by them under circumstances which almost preclude malice aforehand, has recently been the subject of much comment. A few months ago, a comparative youth deliberately shot an old man with whom he had just dined. There was no ground of malice prepense, except the possession of a revolver by a person who apparently could have no necessity for carrying such a weapon about with him. The jury took the view that the possession of this weapon, and especially its recent purchase by a man who had no necessity for it and no superfluous money to spend, was significant of a design against somebody

or other, and returned a verdict of wilful murder. Consequently the youth was to be hanged. Looked at from a purely economical point of view, this was undoubtedly the cheapest way of getting rid of a creature useless, or nearly so, in itself, and of no value as a proletaire; but a number of people strongly dissented from this view, and had influence enough to get the youth examined by the president of the Royal College of Physicians and the Lord Chancellor's Visitor in Lunacy. The result of this was that the youth was reprieved and sent away to a criminal lunatic asylum during her majesty's pleasure, which means for the term of his natural existence. A storm of controversy arose therefrom. I have excellent reasons for stating that the real cause of the reprieve was not connected with the question of responsibility or irresponsibility, but consisted in the fact that as this youth had always been attacked with epilepsy when much excited, as during his trial, and at other times, it was morally certain that he would be similarly attacked when the time for hanging him arrived, and that he would in all probability be legally strangled in the unconscious condition of an epileptic convulsion or paroxysm. This might be a merciful state of affairs for him, but would have excited much comment, especially by the strong party who are opposed to capital punishment, headed by the *Examiner*,—not the *Medical Examiner*. So the lad was reprieved, and, as the real cause had not leaked out, there was a great newspaper controversy about the responsibility of epileptics.

A most elaborate article on the subject appeared in the *British Medical Journal*, unsigned, but bearing self-evidence of being the work of Hughlings Jackson. The view taken up was this: that it is well known to all alienist physicians that epileptic patients are often furiously maniacal after their paroxysms; and, according to most authorities, epileptics sometimes become suddenly maniacal, instead of having an ordinary epileptic paroxysm. During the discharge of epilepsy there is unconsciousness, with or without convulsion. After the fit there is a state of mind left which is more or less automatic. In popular phrase, he is not quite himself,—a perfectly accurate phrase. There is apparently a state of temporary exhaustion of the higher centres, which leaves the lower ones in a condition of imperfect control; in other words, the patient for the time being is in a much more automatic condition than is the normal state. The depth of this reduction may vary from the status epilepticus, or complete prostration which follows an epileptic hurricane, or storm after storm, up to a condition of high mental automatism closely approaching normal consciousness. The less deep this exhaustion, the higher the centres left uncontrolled or over-active. Thus, after a slight petit-mal a condition of very high automatism is left, and acts closely approaching those of full consciousness are performed. Thus, instead of a vague mass of fury there is a state where the acts are associated with the surroundings. Thus, this writer states, exceedingly elaborate actions may be done by epileptics when unconscious after their fits.

Two instances of such a state of high automatism are given from the experience of an epileptic, himself a medical man. At times he has severe epileptic attacks, while at other times he has but slight, transitory seizures. One day, when going with his wife to see a cathedral, he had a slight seizure. In the close, at the time, he had the impression of the building before him, and in the post-epileptic state formed the idea of the building being Buckingham Palace; and he asked his wife if they should not inquire for the housekeeper. The attack of petit-mal was so slight that his wife observed nothing wrong, and she thought he intended some joke. On another occasion a much more serious error was very nearly committed. During attendance upon a case of midwifery a slight attack came on, and in the post-epileptic state he had the impression that he was with a woman of the town, and he narrowly escaped an act which would have involved him in fearful odium, and professionally ruined him, even if nothing worse had happened to him. Thus, there is after each epileptic fit a state of "dissolution," using the term as the opposite of "evolution," this state varying in depth according to the severity of the fit. The slighter and more transitory the fit, the more easily is it overlooked, and the more elaborate, the more nearly normal are the actions and the more they seem purposive to on-lookers. This is a subject which calls for close attention on the part of the profession, and the after-actions of epileptics should be carefully noted by those who have the opportunity of observing them.

The interest felt in the election of a successor to Sir William Fergusson in the chair of Clinical Surgery at King's College has been well maintained, and many and various were the rumors. The reply made by Professor Lister at Edinburgh, to a memorial signed by some seven hundred students, was held to indicate that he had no intention of "coming South," and that London held nothing good enough to tempt him from the Northern capital. But, as events show, such an interpretation was unfounded, for Lister is now Professor of Clinical Surgery in King's College. Whether such change is not rather a come-down in the world, is a matter on which opinions may vary; but it is certain that the council of King's College exercised a worldly-wise intelligence in securing one so well known as Professor Lister. Many students will be attracted by the great exponent of the antiseptic system, and will take out his course at least, and this will prop up to some extent

a school which has been withering, partly from its government and partly from its association with the Church of England,—an association which has had a baneful influence. A profession of faith is required from its teachers and professors, and chapel attendance was once anyhow a necessary matter with the students, however this discipline may be relaxed now. King's College was founded as an opponent of University College, which was then represented as being decidedly materialistic, and was to be the stronghold of orthodox science; but somehow its religious connections have been disastrous to it. It has had to drop practically the religious test with its professors, and the school wanes, and will not recover till chapel attendance, and all that is linked with it, is abolished.

Students will undoubtedly be attracted by Professor Lister's well-won fame, and to many his coming to London will be very satisfactory, as they will so be enabled to see his method as applied by himself, instead of having to spend a session in Edinburgh in order to attain that end. But Professor Lister, though now near the great highway of the earth, and thus brought within reach of many American and Continental visitors who could not have seen him in Edinburgh, will not have it all his own way in London. He is not a brilliant operator, and as to his method and his results he will find himself the object of keen critical attention. A man may be very prominent in the provinces, but London medical societies bring a man to his level very quickly, and it remains to be seen how far Lister will bear the tests to which he will be subjected. If he really has the capacity to ride on the crest of the wave of opinion here, then he establishes the fact that he is a surgical genius; but if he fail to attain this, it may be a matter for doubt how far he has consulted his best interests and his reputation by his southward migration. Mr. Smith has been elected to the chair of Systematic Surgery, an honor to which his long services gave him a claim, even if this appointment cannot be regarded as adding materially to the reputation of the school or the strength of its staff.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, MARCH 8, 1877.

The PRESIDENT, DR. H. LENOX HODGE, in the chair.

Heart showing anomalous arrangement of the leaflets of the pulmonary valve, these being four in number. By Dr. J. C. WILSON.

THIS heart, which is enormously enlarged and dilated, was removed from the body of T. M., an Irish laborer, fifty-five years of age, who died in my ward at the Philadelphia Hospital, February 8, 1877, of granular and fatty degeneration of the kidneys, with general anasarca and effusions into the serous cavities.

The man's death occurred ten days after his admission to the house, the clinical history of the case whilst it was under observation being the description of the ultimate dyscrasia of such renal affection.

I omit it, for the reason that the specimen is shown simply as an illustration of the valve-malformation.

The heart weighs twenty-five and a half ounces. Both ventricles are dilated, the right greatly so. The wall of the left is considerably, that of the right slightly, thickened. The mitral and tricuspid valves are but little changed; the aortic semilunar valves are thickened, and small masses of calcareous matter are situated in the sinuses behind them.

The pulmonary valve is composed of four semilunar segments. Of these, three are quite normal in appearance and of nearly equal size; the fourth, which lies between the posterior and the right lateral segments, is somewhat less than half the width of the others, but of nearly the same depth. Like them it has a distinctly symmetrical convex marginal attachment to the wall of the artery, and when carefully examined upon the handle of a scalpel shows a slight thickening at the middle of its free margin, which corresponds to the corpuscle of Aurantius. There are elongated slit-like fenestrations near its edge, such as are often encountered in valves otherwise normal. The sinus of this little extra valve communicates with that of the posterior leaflet. In June, 1876, I exhibited to the Society a similar specimen. In that heart, as here, the fourth leaflet was smaller than the others, but like them in shape and outline, especially as regards its free margin and the margin of attachment. It occupied the same position as in this specimen, namely, between the posterior and the right segments.

It was on that occasion suggested by Dr. Pepper that the malformation was due to some antecedent morbid process, by which the long posterior segment had formed a linear adhesion to the wall of the artery, and thus been divided into two parts. After the fresh opportunity for study afforded by the analogous specimen before us, I am convinced that this is not the case. On the other hand, the anatomical completeness of the small fourth segment, its symmetrical outline, its faintly-marked but distinctly-recognized corpuscular thickening in the middle of the free edge, and the entire absence of similar disease-signs in the parts immediately adjacent on the right side of the heart, all indicate the origin of this rare malformation in the processes of specialization of points in early fœtal life by which the valves are formed.

Henle alludes to the infrequent occurrence of such supernumerary valvelets, and Pea-

cock, in his book on Malformations of the Heart, has collected several cases.

Encephaloid cancer of the lymphatic glands of the neck. By Dr. R. A. Clemann.

Twenty-eight months ago a woman of nervous temperament, fifty-five years of age, consulted me in regard to a small pendulous growth on the left side of the face, which had existed there several years. Being annoyed by the resulting disfigurement, she had lately tied a ligature about it, a measure which had led to its partial strangulation. I separated what remained of the pedicle, and the little ulcer that was left healed kindly. A year subsequently (sixteen months ago) she showed me an ovoid nodule, situated just behind the angle of the jaw on the same side occupied by the former growth. She stated that this already existed at the time the first little tumor was removed; it was then a small "lump," rolling under the skin, and gave her no pain, but had since grown much larger, and within a short period had caused her so much suffering as to destroy her night's rest. The pain was described as extending over the whole side of the head and into the ear. My examination revealed a movable mass of the shape mentioned above, hard to the touch, and apparently tender. I estimated it to be nearly two inches in its longer, and about one and one-half inches in its shorter, diameter. The skin over it was reddened, an effect, perhaps, of the hot poultices she had been applying. Two months afterwards (fourteen months ago) the tumor had diminished to less than one-half the last-mentioned size. It was still hard, but was now more irregular in contour, as though separating into lobules. The patient, on being questioned as to the fact, said she had noticed a tendency in the "lump" to increase and then diminish. A week ago she consented to have the growth removed. It had grown larger again, and was the seat of lancinating pains of great severity. Exposure to the cold irritated it, as well as the contact of woollen wrappings. It made her life miserable. The skin over it had now become closely adherent, and was of a deepened hue; its surface was obscurely cleft and uneven. It seemed to extend deeply behind the maxilla.

The tumor, as removed, is seen to be about the size and somewhat the shape of an English walnut, one and one-fourth inches in its longer, and about three-fourths of an inch in its shorter, diameter. Its seat was in the subcutaneous cellular tissue, but it had encroached upon the parotid gland, so that it was thought prudent to excise a portion of this along with it. Its structure, like a congeries of enlarged lymphatic glands, in gross appearance is very similar to that of a firm encephaloid growth which I presented to the Society a short time ago, the latter being recurrent to a mixed encephaloid and epitheliomatous tumor of the integument.

Whether there is any connection to be traced between this morbid mass and the little pendulous tumor of the cheek is not certain. If the patient is correct in saying that they were coexistent, it seems likely that an effect of the strangulation was to enlarge the affected glands by simple irritation, and that a cancerous process was afterwards developed there. But if there was an interval between the appearance of the growths, then it is more probable there was an element of malignancy in the sphacelated tumor of the cheek. An interesting feature, as obscuring the diagnosis of the nature of the growth, was the variation in its dimensions clearly distinguished by me.

Report of the Committee on Morbid Growths.

A microscopical examination of the specimen presented by Dr. Cleemann shows a circumscribed collection of epithelial cells, arranged in alveoli. The stroma constituting the walls of the alveoli is very scanty in proportion to the amount of cellular elements. The new formation may be classed among the carcinomata, variety encephaloid.

March 22, 1877.

Acute carcinoma of breast. By Dr. John Ashhurst, Jr.

The specimen is one of rapidly-growing cancer of the breast, removed by operation from a married woman forty-four years of age. The duration of the disease has been seventeen months, and the tumor, which was of unusually large size, involved the pectoral muscle, a considerable portion of which was removed (laying bare the ribs and intercostal spaces), as were also several lymphatic glands in the infra-axillary region. The operation was performed on January 27, and the after-progress of the case had been complicated by the occurrence of secondary hemorrhage on the fifteenth and sixteenth days, and of a sharp attack of pleurisy on the nineteenth day; but the patient survived these risks, and at the date of the report was thoroughly convalescent.

Dr. Nancrede has made a microscopic examination of the growth, and found it to present the characteristic appearances of encephaloid cancer.

Osteo-sarcoma of femur. By Dr. John Ashhurst.

This specimen of osteo-sarcoma of the right femur was removed by hip-joint amputation from a young man twenty-two years of age. The disease first appeared fourteen months previously, above the inner condyle of the femur, and rapidly increased in size, spreading upwards, also, towards the groin, until at the time of the operation the whole thigh was enormously enlarged. The tumor was quite hard, the superjacent tissues being tightly stretched over it, and the subcutaneous veins much distended. The circumference of the diseased (right) limb was twenty-six and a half inches, and that of the left limb only six-

teen inches. Amputation at the hip-joint was performed on February 28, and the progress of the case since then has been perfectly satisfactory. The weight of the tumor, after all the soft parts had been removed, was fourteen pounds.

A microscopic examination of the peripheral portion of the growth, made by Dr. Nancrede, showed the tumor to be a sarcoma, the prevailing elements being round and spindle-shaped cells, though no doubt the deeper portions would have been found to contain myeloid or giant cells as well.

A plaster cast is also exhibited, showing the appearance of the limb before amputation.

Carcinoma of stomach, pancreas, mesentery, etc. By Dr. W. H. PARISH.

J. M., a German, æt. 64 years, and a ragpicker by occupation, was admitted to the St. Mary's Hospital February 13, 1877. His mother died of a tumor of the neck; his father of some lung-affection, probably phthisis.

His own health had been fair until July, 1876. Since then there has been a gradual loss of appetite and an increasing emaciation. Constipation, pyrosis, and vomiting were among the earlier symptoms, and became more and more aggravated. At the time of admission to the hospital the emaciation had become extreme, and there was a decided cachectic appearance. There was vomiting of everything taken into the stomach, and constipation of twelve days' duration. There was some œdema of the lower extremities; at times pain in the epigastric region, but at no time severe. In the region of the stomach and extending below it, and also in the region of the left lobe of the liver, was a decided tumor, firm and resisting in character, but somewhat movable. There were a number of small masses easily distinguished on palpation, and seemingly very superficial. The tumor was slightly painful when manipulated. There were no ascites. The superficial abdominal veins were decidedly enlarged.

After removal of the constipation and restriction to liquid diet, the vomiting became only occasional, the water-brash remaining persistent. Owing to the extreme emaciation and the marked symptoms, although there was never vomiting of blood, the diagnosis seemed easy, and was that of carcinoma of the stomach, especially the pyloric portion, and a similar involvement of the mesentery and most probably of the pancreas and left hepatic lobe. Death occurred on the 28th of February, of asthenia.

The *autopsy* was made by the resident physician, Dr. Garrett.

In the pericardium was about an ounce of serous fluid. The heart-valves were normal. In the right ventricle, and extending to the bifurcation of the pulmonary artery, was a firm white clot. Old adhesions in both pleuræ. Hypostatic congestion of lungs. In the upper lobe of the left lung was a small hard nodule. In the left lobe of the liver there were several fine nodules. The rest of the liver seemed normal in appearance. The spleen and right kidney were normal. The left kidney gave evidence of cystic degeneration. There was no albumen in the urine. The tumor on removal was found to consist of the stomach, pancreas, portion of the omentum, and mesentery. The mesenteric glands are greatly enlarged and dense in character. The pylorus is decidedly encroached upon by the indurated growth. The growth seems not to involve any of the stomach but the immediate neighborhood of the pylorus. There is no appearance of ulceration of the mucous surface of the stomach. The abdominal aorta and the inferior vena cava were embraced by the cancerous omentum.

A microscopical examination was made by Dr. S. H. Griffiths, whose report is subjoined.

"I present herewith a brief description of the microscopical appearances of the specimens of stomach, pancreas, and mesenteric gland submitted by you.

"*Stomach.*—A section presented an alveolar structure; the alveoli filled with round and distorted cells. The meshes were in some parts large, much broader than the bands of intervening fibrous tissue. Other portions were made up in greater part of the dense fibrous stroma; these would be found in close proximity to the former, and contained small nests of shrivelled or granular cells. The cells varied in size from $\frac{1}{3000}$ to $\frac{1}{800}$ of an inch in diameter, and contained vesicular nuclei and distinct nucleoli.

"Sections of the *pancreas* showed a marked increase of the interlobular connective tissue, which was intermixed with spindle-shaped cells. No nests of large cells were found.

"The *mesenteric gland* was made up of delicate trabeculæ, the large meshes of which were filled with cells, some with lymph-corpuscles, but mostly with large cells; everything densely packed.

"*Conclusions.*—Stomach, scirrhus; mesentery gland, soft carcinoma; pancreas, not determined."

Death from embolism in diphtheria. By Dr. JOHN M. KEATING.

J. B., æt. 35, was under treatment in the Philadelphia Hospital for acute articular rheumatism for some time. The joints most affected were the ankles and the wrists. The attack finally became subacute, and he was obliged to remain in the hospital on account of the inability to do much walking. He had had no inflammation of the cardiac membranes, nor had any murmur been detected during the rheumatic attack.

Two days before his death he called my attention to his throat, which he said was painful and the muscles felt stiff upon deglutition. I found the pharyngeal arches red, swollen, and covered with patches of grayish mem-

brane. He had slight fever, and complained of great weakness, though at the time I saw him he was walking about the ward. The most active treatment was immediately instituted: beef-tea, quinia, iron, absolute rest, and an application of tinct. ferri chl., salicylic acid, potass. chlorat., and glycerine, made to the throat. That evening his condition was somewhat improved. Early the following morning the resident physician, Dr. Philips, was called, and found the patient comatose, pulseless, cold, respirations exceedingly rapid, and the heart beating with great rapidity and irregularity. The symptoms all pointed to heart-clot.

The specimens which I show this evening were removed immediately after death. The clot, which is white, hard, and very large, existing in the right ventricle, extends through the venæ cavæ, and throughout the whole venous system; that in the left heart is smaller, but of the same character, and is prolonged not only through the ramifications of the pulmonary vein, but into the aorta and its branches. The suddenness of the attack, its severity, and the rapidity with which almost complete coagulation of the blood took place, have an especial interest in the fact that the patient was rheumatic.

REVIEWS AND BOOK NOTICES.

TRANSACTIONS OF THE AMERICAN GYNÆCOLOGICAL SOCIETY. Vol. I., for the Year 1876. Boston: H. O. Houghton & Co., Cambridge Riverside Press. 1877.

Organized amid the whirl and bustle of last summer, the American Gynæcological Society bids fair to realize the brightest hopes of its founders. Its first volume of Transactions, now before us, will bear the closest scrutiny, and safely challenge the severest criticism, so superior is it in its breadth of thought and observation, scientific worth, and literary excellence; the writers of the papers in these Transactions being no mere novices, but men skilled in the profession they represent, and experts in the branch of study and practice which they especially call their own.

The annual address by the President, Dr. Fordyce Barker, is a model in its way,—scholarly, eloquent, and hopeful. The papers of the English members—Drs. Barnes, Duncan, Wiltshire, and Tait—are excellent examples of the style and mode of thought of those well-known workers and writers. The paper of Dr. Barnes, on "The Relation of Pregnancy to General Pathology," fairly teems with suggestive ideas. No man can peruse it without an enlargement of his mental vision. The rude practitioner of the country-side and the polished consultant of the city can alike in its pages find food for thought.

Three papers—Dr. Duncan's, on "Central Rupture of the Perineum," Dr. Skene's, on "Cicatrices of the Cervix Uteri and Vagina," and Dr. Goodell's "Clinical Memoir on some of the Genital Lesions of Childbirth"—should be read consecutively, forming an admirable group, showing how disastrous these lesions are to the future health and comfort of our patients, how best they may be avoided, and how, if inevitable, we may mitigate the evils they entail.

Dr. James R. Chadwick gives a "Case of Labor complicated by Uterine Fibroids and Placenta Prævia," and has collected seven additional cases, forming a valuable addition to the literature of the subject. Dr. Byford's paper on "The Spontaneous and Artificial Destruction and Expulsion of Fibroid Tumors of the Uterus" strives to show, by studying nature's procedure, the path which science should pursue. The discussion following this paper, as most of the papers, possesses a value second only to that of the article itself.

The three papers about which opinions will most differ are "Pneumatic Self-Replacement in Dislocations of the Gravid and Non-Gravid Uterus," by Dr. Henry F. Campbell, "Extirpation of the Functionally Active Ovaries," by Dr. Robert Battey, and "Latent Gonorrhœa with Regard to its Influence on Fertility in Woman," by Dr. Emil Noeggerrath. The first of these papers is a full examination of the postural method of treatment in displacement, and is worthy of a careful study. The accompanying discussion will show how diverse the views of the acknowledged experts may be as to the propriety or necessity of a frequent resort to this method. The operation suggested and performed by Dr. Battey has been already brought before the notice of the profession by him, under the name of "Normal Ovariotomy." In the present paper he enters upon a labored defence of this term. His argument seems to us, after a careful reading, an excellent one—to prove that "normal ovariotomy" is a misnomer, and that he should have called it "the operation for the removal of apparently normal ovaries," a legitimate conclusion which he totally disclaims, while he deeply laments that in abandoning this term he can find no other equally good. Referring to his own quotation from Dunglison (p. 111) of the definition of normal as "according to rule, perpendicular," we out of sheer pity suggest "perpendicular ovariotomy," as the "more tenderer" name.

The views of Dr. Noeggerrath will, we presume, find but few enthusiastic advocates. The writer endeavors to sustain his theory by cases and statistical reasoning of a somewhat limited character. For an able examination of these statistics we refer the curious reader to the remarks of Dr. Chadwick.

There have been of late years various attempts to explain what has been termed "the early decay of American women,"

and "the dying out of the American race." Now, without committing ourselves to the view that such a decay exists,—which would be eminently unpatriotic,—we certainly have been supplied with a wealth of explanations of the assumed fact. The M.D., not of Harvard, who doubts the benign influence of the Hub, says, "Too much education! Too much brain-culture!" The foreigner — probably French—who has spent a week in the streets of New York, reading in the faces of our women the secret—revealed to him alone—of their ill health, suggests "bad habits." "The prevalence of criminal abortion," whispers the sensational physician and equally sensational divine. "The habitual prevention of conception," add their hearers, whose ears are itching. The climate is accused by some, — "the American race not acclimated;" the diet by others,—"too little bran in our bread, too much meat, too little mastication." The advocate of advanced ideas in feminine dress says, "Tight lacing, and the weight too much on the hips;" while "high-heeled shoes" is the modest suggestion of the thoughtful student whose relative carries on the anatomical shoe business. But these theories are evanescent. Gonorrhœa alone is eternal. Let those only who have cured it blush in silence, for by the passage of an olive-pointed bougie its existence in a latent state can be proved even in the most thoroughly cured. These latent things are always dangerous, and men having latent gonorrhœa, if married to healthy women,—according to our author,—speedily infect them; not always with the acute disorder, but with uterine catarrh, perimetritis, and ovaritis; and gleet, "like a worm i' the bud," will gnaw not only on the hitherto blooming cheeks of its victims, but will steal its sinuous course through their cervical canals and their uterine cavities and their fallopian tubes till they become sterile.

We would suggest that many blooming though not irreproachable women have suffered from successive gonorrhœas and retained their bloom, and have subsequently married and had children, unless the researches of the late Mr. Acton are of no value. But perhaps there is something in *latent* gonorrhœa more deadly. Can we conceive that the well-known writer is slightly tainted with homœopathy, and views a gleet as a diluted triturated two-hundredth-potency-infinitesimal disease, the more powerful since its particles are the more finely divided?

Dr. Johnson, in the discussion of the paper, struck at the root of the matter, and we may as well say that the evidence presented by him shows an heroic self-sacrifice on the part of our ever noble profession, for he stated that he had conversed with twenty physicians who had had the disease in early life, were married now, and who pointed triumphantly to wives not faded, and families numerous enough to put all idea of sterility to flight. Such statistics, secured by such heroic self-abnegation, should surely outweigh the statistics of Dr. Noeggerrath.

Space, not inclination, prevents a mention of the many other papers of interest. No medical man will regret the purchase of this volume. E. W. W.

GLEANINGS FROM EXCHANGES.

THE TREATMENT OF DIPHTHERIA (*The Clinic*, June 2. 1877).—Dr. Luzinsky (*Allg. Wiener Med. Zeitung*), at the close of a series of papers on Diphtheria, expresses his conclusions aphoristically, as follows:

1. Diphtheria and croup are essentially one and the same disease, and only differ in their local manifestations, or rather in the names given to these.

2. Diphtheria is a general disease, consisting in a peculiar morbid state of the blood, with a tendency to fibrous coagulation in and upon various organs.

3. The origin of diphtheria is miasmatic, its contagiousness not being demonstrated.

4. The life of the patient in diphtheria may be threatened in either of the following ways: the original morbid alteration of the blood, the localization of the exudation in organs necessary to life, the breaking down of the exudate and renewed blood-infection, exhaustion, anæmia, uræmia, or paralysis.

5. With all these dangers, the course of diphtheria is sometimes so mild as to need no medical intervention or assistance.

6. At other times all remedial measures are in vain.

7. In many cases, however, the disease may be successfully combated if the symptoms are properly taken into account.

8. In the treatment of diphtheria, the abnormal tendency to fibrinous coagulation and exudation is to be remembered, and met with solvent substances, as alkalies, principally carbonate of soda and chlorate of potash.

9. The exudation must be prevented or limited by the application of cold, the use of astringents, and removal of the pseudo-membranes.

10. When the diphtheritic exudate is localized in the larynx, trachea, or larger air-tubes, inhalations of solvent fluids are to be adopted.

11. Emetics are only of use when loose exudative masses collect in the air-passages.

12. Tracheotomy only promises good results when the exudation is confined to the larynx, the bronchi and lungs remaining unaffected; it is otherwise to be tried in every hopeless case, even if only with the object of procuring euthanasia.

FEATS AND TRAINING.—The *Lancet*, apropos of the Oxford-Cambridge boat-race, makes the following sensible remarks, editorially: The annual display of muscular prowess by

young men principally devoted to intellectual pursuits is always interesting,—in senses wholly apart from the claim it possesses on public attention as an "event." The feat excites emotions of triumph, the training gives rise to more or less serious misgiving, and the phenomenon of men doing good brain-work, also achieving great results in other departments of energy, must awaken reflections which it is well should be stirred in every thoughtful mind. In principle a perfectly developed man should be good all round. His powers of mind, of muscle, and of special sense should be in a high degree excellent. It is, doubtless, a physiological fact that when only one part of the organism is developed, to the neglect and, therefore, at the expense of others, not only is the integrity of the system as a whole, but, in a special degree, that of the peculiar faculty or faculties cultivated, impaired. The early and signal collapse of men who have only been trained to intellectual pursuits, and know nothing of muscular exercise, has read the world a useful but too little heeded lesson on that point. Meanwhile there is grave peril in excessive training, and violent explosive exertion either of body or mind. Undue training enervates in the end; and an excessive strain on the powers of action, even though it last less than half an hour, may leave lifelong injuries behind.

Treatment of Acne (*Canada Medical Record*, May, 1877).—M. Rodet, of Lyons, prescribes the following treatment in acne. Friction is to be made every evening over the acne papules, with the following ointment:

℞ Adipis, ʒv;
Sulphuris,
Tannin, āā gr. viij ad xv.—M.

In the morning the face is to be bathed with warm water, to which a little bay rum has been added, the proportion being increased from day to day until it amounts to one-third.

M. Doyen, of Lyons, recommends bathing with the following:

℞ Aq. destillat., fʒx;
Hydrarg. bichlor., gr. xxx;
Tinct. lavanduli, fʒiiss.—M.

M. Hardy uses this formula:

℞ Aquæ, fʒx;
Potassii sulphuret.,
Tinct. benzoini, āā ʒiiss.—M.

Two teaspoonfuls in a glass of warm water to be used externally. For the treatment of acne erythematosum (*couperose*), Hardy suggests the following:

℞ Hydrarg. protiod., gr. iss ad ii;
Ung. aq. rosæ, ʒiv.—M.

Six Cases of Latent Syphilis in the Fathers of Healthy Children are reported by Dr. J. Güntz, of Dresden, in the *Vjhrschr. f. Dermatol. u. Syph.*, and *Schmidt's Jahrbücher*, No. 2, 1877. In each of these six cases, at least two years had elapsed since the latest manifestations of the disease, before marriage. In several cases the first child was born syphilitic, the second healthy. In all of the cases, within a few years after the birth of their children, the deeper syphilitic lesions manifested themselves in the persons of the fathers, all of whom had had good reasons, in the birth of healthy children, to suppose that the disease was eliminated from their systems.

Rupture of the Spleen, with Recovery (*Canada Medical Record*, May, 1877).—According to the *St. Petersburger Med. Zeitschrift*, a physician, 33 years of age, after an attack of typhus fever, and seventeen days of convalescence, had four short but sharp exacerbations of fever, in which the spleen became larger than at any time during his illness. After a severe fit of vomiting, symptoms of rupture of the spleen, with internal hemorrhage, set in; the pain in the epigastrium was intense and paroxysmal: an increased area of dulness was manifested about the enlarged spleen, and there was collapse. The symptoms of extending dulness and collapse increased, the temperature sank, and there were cyanosis and suppression of urine. Bladders of ice were applied to the abdomen, and a grain of opium was given every three hours, and finally subcutaneous injections of camphor were tried, and enemata of port wine. On the following day there were no symptoms of peritonitis, and at length there was absorption of the extravasation and general improvement, terminating in recovery. The seriousness of the accident may be judged from the fact that, of twenty-two similar cases, conducted by Kerner, all died.—*Berl. Klin. Woch.*, 4, 1877.

A Supposed Ether Death (*The Medical Press and Circular*).—A case of *soi-disant* death from ether is reported by a contemporary to have occurred in the London Hospital. That it was not in any degree fairly chargeable to the anæsthetic is evident from the conditions observed before and after death. We are told that the patient had been for three days vomiting from strangulation of intestine, and "was so much exhausted that it was a question how far he could bear any operation." A large admixture of air with the ether vapor was permitted, and, as a consequence, "he did not take it well, and struggled much."

On post-mortem examination, the heart was found flaccid, and left ventricle uncontracted: "the lungs were extremely emphysematous, and the bronchi filled with muco-purulent matter."

It is obvious that the patient was moribund when placed on the operating-table, and that his death, while half under the influence of the ether, was a simple coincidence.

Almost all the cases of death attributed to ether seem to have arisen from respiratory disease; it will be necessary, therefore, for anæsthetists to give more attention to the lungs and bronchi in the examination previous to administration of ether.

MISCELLANY.

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.—The twenty-eighth annual session of this Society, just held, numbered one hundred and eighty-four, and was the largest meeting held for years, except the one of 1876, at Philadelphia. The entertainments and receptions were most bounteous, but no intoxicating liquors were to be had either at the private repasts or at the public banquet given by the Dauphin County Medical Society. Prof. D. Hayes Agnew was elected president for the ensuing year; and it was resolved to hold the next annual meeting at Pittsburg.

ACCORDING to the London *Lancet*, the sanitary condition of the Turkish army is very bad, in spite of the admirable arrangements of the camps. The troops are execrably provisioned, and medical care is almost null in the field, and even in the hospitals "often abominable." Scurvy and typhus have both made their appearance. In the Russian army, on the other hand, although there is a great tendency among the privates to get drunk, the great care and foresight of the officers have borne abundant fruit. As an instance, it is mentioned that two regiments of three thousand men each had only conjointly one hundred and three men in the hospital after a forced march of two hundred and fifty miles.

THE SANITARY INFLUENCE OF THE EUCALYPTUS.—At the Sorbonne, recently, some information was given by Dr. De Pietra Santa as to the importance and value of the Eucalyptus globulus in relation to public health. It appears that reports were received by the Climatological Society of Algiers from fifty localities where the aggregate number of bluegum trees is nearly one million, and from these reports the following conclusions have been drawn:—(1) It is incontestably proved that the Eucalyptus possesses sanitary influence; for (2) wherever it has been cultivated, intermittent fever has considerably decreased, both in intensity and in frequency; and (3) marshy and uncultivated lands have thus been rendered healthy and quite transformed. Similar results have been obtained in Corsica, where it is computed that at the end of the present year there will be upwards of six hundred thousand plants of eucalyptus in full growth.—*Medical Press and Circular.*

ABNORMAL APPETITE.—In reporting the death of an imbecile at the work-house, the chairman of the Bristol Board of Guardians narrated an extraordinary incident. The deceased's idiosyncrasy was to put anything that he could get into his mouth. For years past he had a special appetite for the blankets and rugs supplied him as bed-covering. The deputy-chairman said the deceased had consumed upon the average a large woollen rug every three weeks, and in consequence of this the guardians had directed that a supply of bread should be always kept alongside of him, so that he might indulge his propensity for eating in a legitimate way; but in the intervals between meal-times he rejected the bread and persisted in eating blankets.—*British Medical Journal.*

DEATH FROM TWENTY GRAINS OF CHLORAL.—Dr. E. E. F. Ingalls (*Chicago Medical Journal and Examiner*) reports that he gave to a German woman, about 33 years of age, apparently healthy, ten grains of hydrate of chloral, repeated in one hour. Soon after the second dose the patient manifested alarming symptoms of poisoning, and died, in spite of all efforts, in about fifteen minutes. No post-mortem examination was made. The patient had taken only two doses of chloral, of ten grains each, an hour apart.

THE editor of the *St. Louis Medical Journal* asserts that the "hell-hounds" are on his track. We are glad they have got so far West.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JUNE 17, 1877, TO JUNE 30, 1877, INCLUSIVE.

HEAD, J. F., SURGEON AND MEDICAL DIRECTOR.—Granted leave of absence for one month, S. O. 121, Department of the South, June 16, 1877, and leave extended one month. S. O. 135, Division of the Atlantic, June 21, 1877.

BAILY, J. C., SURGEON.—Assigned to duty as Post-Surgeon at Benicia Arsenal, California. S. O. 66, Division of the Pacific and Department of California, June 15, 1877.

GRAY, C. C., SURGEON.—Assigned to duty at Fort Riley, Kansas. S. O. 115, Department of the Missouri, June 16, 1877.

BACHE, D., SURGEON.—In addition to his present duties, to attend the sick at Alcatraz Island, California. S. O 68, Division of the Pacific and Department of California, June 20, 1877.

WOLVERTON, W. D., SURGEON.—Assigned to duty at Fort A. Lincoln, D. T. S. O. 77, c. s., Department of Dakota.

WOODHULL, A. A., SURGEON.—Relieved from duty at Alcatraz Island, California, and assigned to temporary duty at Camp Halleck, Nevada. S. O. 68, c. s, Division of the Pacific and Department of California.

WHITEHEAD, WM. E., ASSISTANT SURGEON.—Assigned to duty at Fort Larned, Kansas. S. O. 115, c. s., Department of the Missouri.

VICKERY, R. S., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Schuyler, N. Y. H. S. O. 142, Division of the Atlantic, June 28, 1877.

DE WITT, C., ASSISTANT-SURGEON.—Assigned to temporary duty at Omaha Barracks, Nebraska. S. O. 87, Department of the Platte, June 26, 1877.

SEMIG, B. G., ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Camp Bidwell, California. S. O. 66, c. s., Division of the Pacific and Department of California.

MAUS, L. M., ASSISTANT-SURGEON.—Assigned to duty at Standing Rock Agency, D. T. S. O. 77, c. s., Department of Dakota.

TORNEY, J. H., ASSISTANT-SURGEON.—Relieved from duty in Department of the Gulf, and to report to the Commanding General Department of the Missouri, for assignment. S. O. 135, A. G. O., June 15, 1877.

NEWLANDS, WM. L., ASSISTANT-SURGEON.—To report to Major George B. Sanford, 1st Cavalry, for duty with his command. S. O. 68, c. s., Division of the Pacific and Department of California.

PHILADELPHIA, JULY 21, 1877.

ORIGINAL COMMUNICATIONS.

THE CAUSATIVE RELATION EXISTING BETWEEN THE ANATOMICAL ARRANGEMENT OF THE TISSUES AT VARIOUS AGES, AND THEIR MORBID GROWTHS.

BY CHARLES B. NANCREDE, M.D.,

Surgeon to the Protestant Episcopal Hospital.

Read before the Pathological Society of Philadelphia, March 22, 1877.

THE etiology of morbid growths is of great interest, I conceive, to every one in this Society, but more especially to its surgical members, since they are oftener called upon to deal with such. It seems as yet beyond our power of explanation why such morbid growths should occur, and all will agree with me in the desirability of such knowledge, if attainable. I offer this paper in hopes that others who have larger opportunities of observation will be induced to investigate as to the truth of my suggestions, and either demonstrate or disprove them.

I shall only consider in this paper the pathology of the malignant morbid growths.

In the past two or three decades many diseases have been removed, by our improved methods of investigation, from the category of functional to that of organic affections, and "specific actions" are less resorted to than formerly to explain pathological processes. I think, therefore, that past experience has proved how illogical it is to assume some "specific" action when our inadequate means of investigations fails to give a ready explanation of morbid phenomena. I say our past experience, since it has been demonstrated that organic changes exist in supposed functional diseases, which had previously eluded our imperfect investigations.

Let me here state my belief in the purely local origin of all primary malignant growths, being exceeding sceptical about special conditions of constitutional origin, believing that more advanced knowledge will explain them better, on mere anatomical grounds. I have not the time, nor is this the place, to give a history of pathological histology; but if I did so, instances as surprising as the anatomical explanation of the etiology of tumors would present themselves.

I believe that there has been too great neglect of the study of a most important portion of the tissues of morbid growths, viz., their vascular supply as compared with that of the normal tissues.

According to His and Waldeyer, by observing the first differentiation of the cells of the ovum into their three layers, we see that the intermediary nutritive apparatus arises not from a splitting-off from the inner and outer organo-poietic layers, but from a layer which grows in between them from the germinal area. When we consider that from this are formed the vascular and connective-tissue systems, and that they are distinct in their origin from the organs themselves, we can see that this parentage may have an important bearing on the pathology of morbid growths. Again, let me advert to the important fact that in after-life the tissues show most distinctly their parentage, and only growths resembling tissues similar to those normally formed by the ovular layer from which the diseased tissue sprang are ever found in it primarily.

If, therefore, a connective tissue be induced to take on morbid formative action, only a growth resembling such as are normally formed by the middle germinal layer will result. If, on the other hand, an epithelial tissue be irritated, not a connective tissue but an epithelial will result, or at least one such as is formed from either the inner or outer layer.

As long, therefore, as these two constituents of an organ receive their normal, proportional blood-supply, any irritation will result simply in a hyperplasia or hypertrophy. On the other hand, let one receive an undue vascular supply, an excess of one tissue—say the epithelial—will be produced, and that, too, in a limited area.

Now, the pre-eminent peculiarity of the carcinomata is that they do not respect the connective-tissue limits, that we find epithelial elements where only connective tissue should be present. I shall first refer to the epitheliomata, and take as a type those of the lips. Thiersch has shown that in the old a decided atrophy of the connective tissue of the lip is found in certain cases, so that the epithelial and glandular elements receive relatively a larger supply of blood than the connective tissue. If in such a con-

dition of the tissues any external irritation occur, such as the smoking of a short, foul pipe, or some accidental abrasion or chap, which is prevented in any way from healing rapidly, what will be the result? Clearly the tissue possessing the better blood-supply will outstrip in growth the one having the poorer supply of nutriment. But if this irritation obtained in an organ where the connective tissue was in normal amount, not an *epithelioma* but a *papilloma* would result. An irritation of the papillary portion of the skin causes these minute elevations to grow, and we have an outgrowth, a papilloma or "wart." But let this irritation go a step further; let the warty growth be constantly stimulated, and, by the mutual pressure of the papillæ, increased by the tendency to dendritic growth often found at their apices, the epithelial elements can no longer be thrown off, and, if I may use the term, retention-cysts are formed, crowded with cells. If the cell formation still continues, the masses of cells *must* grow in the direction of least resistance. Under the normal conditions in youth the connective tissue is too strong a barrier for extension in that direction; but in advanced age this, as has been shown, is so weakened in many cases as to permit the epithelial cells to penetrate more readily into the deeper portions of the lip than into the thick, unyielding, horny epidermis. In like manner, when the morbid process starts in the sebaceous glands of the lip, the cells find so little resistance that they readily penetrate into the subcutaneous tissues.

For the other forms of carcinoma I shall take those of the breast as the type. These occur, as a rule, at and after the middle period of life, often after years of almost ceaseless functional activity of the glandular portions of the organ, or at least before it has lost its full functional power, and yet just at the time when the connective tissue is relatively atrophied compared with the glandular. The explanation of the production of carcinoma here is similar to that for epithelioma, allowing for the differing anatomical arrangements of the parts.

Again, let us examine the breast some years later than in the supposed case above, and the conditions will be found to be reversed. Owing to the complete cessation of any demand for functional activity, the glandular elements atrophy, and now the connective tissue vastly preponderates. Irritate such a gland into formative activity, and what results? As there is almost no glandular tissue present, it is manifest that the growth cannot well be glandular to any great extent. What then? Why, plainly a "connective-tissue cancer," a true schirrus, where the glandular elements proliferate very slightly, if at all.

If these views be correct, the objector may urge, *all* are liable to cancer in some form upon arriving at a certain age. Not so; for the relative amount of the various tissues, and the time at which they commence to atrophy, vary with each individual. One has a powerful muscular development, another a tendency to accumulate fat; one is old at forty-five years, another as young at seventy. We see this difference best shown, perhaps, in women, among whom the age at the time of the menopause has varied from thirty-five years to fifty-five, a difference of twenty years.

I believe that the so-called inheritance of cancer is this relatively earlier atrophy of the connective tissue, and a peculiar readiness to respond to irritants of the glandular elements transmitted from father to son.

If one hundred patients suffer from wounds of a precisely similar nature, extent, situation, etc., and are treated in the same manner, do we find the healing process alike in all? On the contrary, each differs in some points from the others. In one it heals by the first intention; in another by granulations; in a third it may slough; in a fourth a spreading ulcer may form; while in some others no reparative action may occur for a lengthened period: yet we explain these differing results, and properly, by no specific action in the wound, but by a difference of constitution and readiness to respond to an irritant. Now, what is understood by this differing of constitutions and irritabilities? Do we mean some unknown, unknowable specific something which produces these results, and these only, being capable only and always of doing this same thing? Certainly not, but some anatomical peculiarity whereby the blood- or nerve-supply is either normal, in excess, or deficient; that the cells of the part are produced with the exact rapidity requisite for organization, or too quickly or too slowly for it, and that all these aberrations are within our control, because by treatment we can alter the anatomical rela-

tions of blood- and nerve-supply to the tissues.

Now, the sarcomatous growths occur, as a rule, at an earlier period, when the system is in its prime, viz., when the intermediary nutritive apparatus is most active and the glandular is relatively less so. An apparent proof of this protective power exerted by the connective tissue at its prime is the fact that an adeno-sarcoma of the breast will remain for years in its original condition until the time of life arrives when the connective tissue commences to atrophy, when, the growth taking on cancerous action, the glandular elements invade this tissue. Another fact in support of these tumors being due to the anatomical arrangement of the tissue is their frequent occurrence after injury, which acts, of course, in a purely mechanical manner. They also occur in cicatrices, where, equally of course, irritation has been present and is still lingering.

Sir Astley Cooper has pointed out an interesting fact with regard to the breast,—that in the virgin, and in the intervals between lactation, the cellules of the gland are in an undeveloped condition, rendering it impossible to demonstrate them, even by injecting the ducts. Thus, at these periods the connective-tissue system of the gland preponderates over the glandular.

Let me suggest that the normal vascular supply of the various organs subject to primary malignant growths should be examined by careful injections in youth, maturity, at the climacteric, and in old age. If this be properly done, I hope that our labor will be rewarded by an anatomical explanation of many of the so-called specific irritants.

I am not prepared to say what is the exact nature of the irritation which sets up this abnormal action; but from the frequent coincidence of mechanical irritations in the case of epitheliomata, I am inclined to believe that there is in all cases some slight mechanical or chemical irritant acting upon the "locus minoris resistentiæ," anatomically prepared for the morbid growth. Now, by a mechanical or chemical irritant I do not mean a violent blow or a cauterizing agent, but anything that increases the amount of blood in the part, however unnoticed or unnoticeable it may be. To repeat, it is only when the blood-supplies of the glandular and connective tissues are not normally balanced that we have a morbid growth; when they are, merely a hyperplasia or hypertrophy can result. The irritant from its very nature must at the outset at least be very difficult, if not impossible, to detect, for, were it otherwise, instead of a morbid growth inflammation in some form would result. The irritant must be slight and constant, and consequently most difficult of detection.

If this be the true explanation, why then are these growths so malignant, when they are mere hyperplasiæ of elements in themselves normal? For the following reasons. If in an organ with an already insufficient vascular supply to its connective tissue we have a rapid proliferation of epithelial elements, the blood-supply will be rendered relatively still more insufficient, notwithstanding the new vascular formation in the morbid growth itself. Then sooner or later the mutual pressure of the rapidly-proliferating cells will obliterate the smaller vessels, and necrobiosis will inevitably follow. The secondary so-called metastatic growths have their origin, I believe, in cells of primary growth conveyed by the lymph- or blood-currents into the various organs. These cells, endued with their exuberant pseudo-vitality, either by their own multiplication or by epithelial infection in the case of cancer, give birth to the secondary growths. Also, both the primary and secondary growths frequently prove fatal by preventing organs essential to life from performing their functions properly, since these growths infiltrate until they are actually the malignant one.

I trust some one having more experience and greater opportunities will test the truth of my suggestions by actual microhistological examination, and I hope myself at some future day to be able to present to you the results of my own further labors. So much has been explained of late years anatomically about which we formerly were compelled to theorize, that it surely is not expecting too much to look for an anatomical reason for morbid growths. If such be found, many causes may excite the formation of these tumors, instead of a special one for each variety.

Let me here quote from a most prominent upholder of the hereditary and constitutional origin of cancer, Sir James Paget. He says, "But now let it be observed, this tendency to cancerous disease is most commonly derived from a parent

who is not yet manifestly cancerous, for, most commonly, the children are born, and sometimes even become cancerous and die, before cancer is evident in the parent; so that, as we may say, that which is still future to the parent is transmitted potentially to the offspring. Nay, more; the tendency which exists in the parent may never become in him or her effective, although it may become effective in the offspring; for there are cases in which a grandparent has been cancerous, and, although his or her children have not been so, the grandchildren have been."* . . .

With the greatest respect for Sir James Paget's opinions, I do not see why or how it is transmitted "potentially to the offspring." I would rather interpret after this fashion: the father possessing this peculiar tendency to the excessive atrophy of one tissue over the other transmits it to the children, as he does his features, etc., very possibly reinforced by a like evil tendency on the maternal side. In the case where he escapes totally there has been no local irritant, but with his children there has. Again, when it leaps a generation, I would prefer to say, it leaps any exciting cause. The fact of its earlier appearance in the offspring than in the parent† would seem to confirm this, since at the time of the conception of the child the tissues of the parent would be in their retrograde condition, and consequently most likely to produce a more intense predisposition to atrophy, or an actual earlier atrophy, in so far as the child starts with a lower grade of tissues at birth than the father did at his.

Paget likewise admits the fact that cancer is unquestionably a disease of degeneracy, as shown by the age at which it occurs.‡ This is precisely what I have tried to show, only that it is a relative degeneracy of certain tissues. Dr. Walshe has collected evidence that "the maximum amount of cancerous disease occurs in Europe, and that it is very rare among the patients of the hospitals at Hobart Town and Calcutta, and among the natives of Egypt, Algiers, Senegal, Arabia, and the tropical parts of America."

Mr. C. H. Moore also says, . . . "The vigor of its growth, as measured by the number and size of the deposits, generally increases instead of diminishing with the exhaustion of the patient. Improvement of the health does not feed, but starves, the disease, the reverse of what would happen if cancer were directly dependent for its vigor upon that of the system."§ Very possibly this improved nutrition is directed mainly to the connective-tissue system.

Dr. Walshe suggests that it may be due to "the wasting influence of the higher civilization,"‖ and I think it most likely, since civilization is certainly not calculated to promote the due nutrition of each and every tissue,—indeed, quite the reverse. The fact that deep mental distress has influence in favoring cancer would seem rational, since it seriously interferes with nutrition. So high an authority as Sir James Paget says on this point "that we can hardly doubt that mental depression is a weighty addition to the other influences that favor the development of the cancerous constitution. Nor is it strange that it should be so: it is consistent with the many other facts showing the affinity between cancer and depressed nutrition."¶ Even he, who has no belief whatever in the local origin of cancer, is compelled to admit that some parts are specially fitted for it, and that age increases this fitness, but he cannot say how, as in the following quotation: "We are of course disposed to look for explanation to peculiarities of tissue, and to their changes with age, and we can hardly doubt that these are chiefly influential."** Again, Paget gives us an important argument, as it seems to me, against the constitutional "specific" cause of cancer, in that he says, in a foot-note to page 829, 3d edition, of his Pathology, "The induction of this secondary cancerous cachexia by the presence of a cancerous tumor is well illustrated by such cases as sometimes occur, in which, after the removal of the tumor, the general health remarkably improves, to fail again when recurrence ensues, and again mend after the second removal."

Secondary cancerous cachexia here means what is generally understood by the ordinary cancerous cachexia.

The lungs, liver, and bones are the most usual sites for the secondary growths, which is easily explainable by examining the anatomical arrangement of the blood-vessels in these organs, and their relative

* Page 792, Paget's Surg. Pathology, 3d Lond. ed.
† Page 793, op. cit. ‡ Page 798, op. cit.
§ Holmes's Syst. Surg., vol. i. page 590, 2d ed.
‖ Pages 799, 800, Paget's Surg. Pathology, 3d Lond. ed.
¶ Page 800, op. cit. ** Page 804, op. cit.

position in the route of the circulation. Carcinomata are undoubtedly propagated along the lymphatic system. All the lymph is emptied into the veins, and must go through the lungs first. Here the fragments, if of too large size, will be arrested; if not, they will pass on to other organs possessing either capillaries of smaller diameter or mechanically favorable for entangling small particles. Just this latter condition obtains in the liver and bones, the former having a double capillary network varying in diameter, and the latter having vessels coming off at acute angles in a perfectly rigid surrounding tissue. There is also reason for believing the blood-current is slower in the bones than in some other organs. In the cases apparently not thus explainable I would call attention to the fact that small secondary tumors may have been overlooked which have really been the primary sources of the truly tertiary growths, which we wrongly consider secondary, or, as some would have, primary, because not in the proper anatomical line for emboli.

To save space, I have not alluded to the more common arguments for or against the constitutional origin of cancer, since most are probably familiar with them.

2109 Pine Street, March, 1877.

THE EARLY OPERATION FOR STRANGULATED HERNIA.

BY OSCAR H. ALLIS, M.D.,

Surgeon to the Presbyterian Hospital.

A PHYSICIAN practising in an adjoining county said to me, "I recall six operations for strangulated hernia, and all of them were fatal." My rejoinder was, "I recall six cases, and only two of them were fatal." To my question, How soon did death occur after the operation? he replied, "In one the patient was dead before the operator had cleaned his instruments; in a second the operator had not reached home, a distance of five miles; a third died during the afternoon; and none of them survived the operation twenty-four hours." In the two fatal cases that I alluded to, the operation was performed by a skilful surgeon, but death supervened on the following day: so that in the eight cases the issue was in no way attributable to the operation.

Such a fatality as this recorded of the operation for strangulated hernia must certainly have a bad effect upon the popular mind. With the people it is the operation that kills, and not the rupture. They look upon the operation as offering but a slight chance of relief. They recall cases operated upon by the most eminent surgeons that resulted in death, and hence they often meet one at the outset with, "Doctor, no cutting. If the patient is to die, let him die without any cutting."

But the patient and friends are not to be blamed for their obstinacy. It is the boast of some physicians that they have never failed to reduce a strangulated bowel; and some even venture to say that if a bowel is not returned in its early stages it is a reflection upon the skill of the attending physician. In a case of strangulation occurring in a neighboring city a man was about to be operated upon, when another physician was called in and succeeded in relieving it by taxis. The circumstance was repeatedly narrated to me as a great triumph over surgery, and no doubt hundreds of families stand sponsors for the achievement, and will hand it down to posterity, little dreaming that that one successful case may exert a fatal influence upon *scores* that will follow in its path.

The reduction of hernia by taxis must vary with the varying circumstances of each individual case. When the ring is large and the canal (as in old herniæ) necessarily short, one may say with propriety, "I reduced the hernia;" but when the canal is long and narrow, *then nature, and nature only*, can reduce it. I have seen cases that it would have been impossible to restore without traction *from within the abdominal cavity. It is only when the bowel can assist the taxis that reduction of small herniæ is possible.*

There are surgeons of large and valuable experience who would not resort to taxis when the strangulation had persisted twenty-four hours, especially if efforts had during that time been made to relieve it. If called in such a case they would operate without delay. Their reasons, founded on experience and common sense, are, that mortification must be imminent at this time, and that any resort to manipulation must not only imperil the vitality but also endanger the integrity of the constricted bowel. This is a most important point, and it would be a good rule of practice *to institute no manipulation after twenty-four*

hours, especially if the symptoms have been accompanied by violent and continuous vomiting.

Neither is it safe to leave it to the judgment whether the time has arrived for operative procedure or not. *The time has arrived the instant nature, assisted by the best-directed efforts of the physician, has failed.* Before the introduction of anæsthetics, ice and opium had their value; but, taxis failing after complete relaxation from the former, the knife should be resorted to, certainly no later than twenty-four hours, and this will often be found to be too late. What is to be gained by delay? Will the swelling of the entangled gut, the outpouring of serum and lymph, the advancing peritonitis, and the hourly lessening strength of the patient accomplish what earlier and more favorable measures have failed to do?

That the experience in individual cases may mislead one may be seen in the wide difference in three cases of femoral hernia. The first made a good recovery after six days of strangulation; the second survived (with temporary artificial anus), the operation having been performed on the fifth day; while a third died two days and a half from the first constriction. Death in some cases may fairly be attributable to shock, and occurs before inflammatory symptoms can be detected. Indeed, who can estimate the prostration from such long-continued and paroxysmal pain, aggravated by violent and repeated vomitings?

The operation for the relief of a strangulated gut is dreaded, and I think without sufficient reason, by many practising physicians who skilfully perform more difficult operations. No physician practising obstetrics would be exonerated from neglect to possess and skill to use the forceps, and yet the patient and well-directed labor that qualifies him for the assumption of the latter responsibility will fit him for a far less bloody and possibly less important one, for in the latter case only one life is placed in jeopardy.

I shall not attempt in this article to clear up anatomical difficulties that so perplex the student. I know of no way to relieve his mind when, after listening to lectures upon this subject, he comes forward with the pertinent questions, "*If in oblique inguinal hernia we are to cut upward and outward to avoid the epigastric artery, and in direct inguinal hernia we are to cut upward and inward for a similar reason, how are we to determine its position in old inguinal herniæ, which we are told may be either direct or indirect, and without a possibility of determining which?*"

And again, "*In femoral hernia, to cut outward will endanger the vein; to cut downward will do no good; to cut inward will not relieve the constriction; while to cut upward, the only direction that will relieve the constriction, will endanger the obturator artery in one case in three and a half.*"

In such a dilemma it is not to be wondered at that the student leaves college dreading hernia more than any other branch of his future work; and yet from years of "quizzing" I can say that there is not a department of medicine upon which teachers are more thorough than upon the one under consideration. The anatomy and various steps in the operation are too clearly enunciated in the text-books to require repetition here.

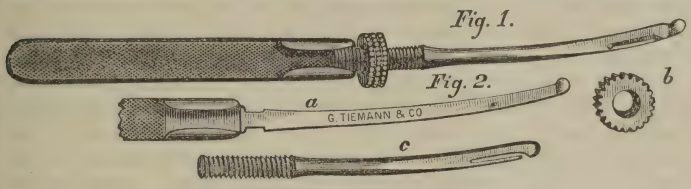
The chief danger in the operation is in the last step,—*i.e.*, the one that liberates the constriction. Here two structures impede the operation. The *gut* has been wounded by Lawrence, Sir A. Cooper, Cloquet, Jobert, and Liston, and in fourteen cases severe and at times *fatal hemorrhage* has followed this last and most important step.

To render the operation as free from danger as possible, many hernia directors and hernia knives have been constructed. I have never seen an operation in which the finger was not the best and safest guide. By the forefinger of the left hand the constriction can be detected and the bowel held out of the way, while at the same time it furnishes a guide for the blade of the knife as it is carried to the point of constriction. Still, there are times when the most skilful and most experienced operators have found a director necessary, and, as such an instrument is of but a trifling cost, it is best to possess one.

Through the skill and patience of Messrs. Tiemann & Co., of New York, I have added to my case of instruments a herniatome that I think will render the operation free from the dangers that have been enumerated.

Fig. 2 represents the instrument when taken apart; *a*, the blunt-pointed blade; *b*, the nut that controls the movements of the shield; *c*, the shield that may be made to conceal or expose the blade by turning the nut *b*.

Fig. 1 represents the knife closed and ready for use. The blade is entirely covered, and cannot be made to cut anything. In this condition the blunt point of the knife may be carried down along the finger to and beyond the constriction,



and the little notch seen just behind the blunt point be made to catch the constricting band. The blade by turning the nut can now be gradually uncovered, while at the same time the tip of the instrument is pressed against the fibres of the ring, which will yield as soon as it comes in contact with the cutting edge.

To those who are accustomed to the operation of hernia, suggestions are very commonplace. It is to those who dread the operation, but who feel the importance of being prepared for it, and to those whose experience is as yet meagre, that such an instrument recommends itself. Its cost will not greatly exceed that of the ordinary blunt-pointed herniatome; and, inasmuch as it will take the place of two instruments,—the hernia knife and the blunt-pointed bistoury,—it will be cheaper in the end.

1328 Spruce St., Philada., July, 1877.

NOTE ON THE AUTOMATIC REDUCTION OF HIP-JOINT LUXATION.

BY H. H. A. BEACH, M.D.

IN the issue of the *Times* of June 23, 1877, is a letter from New York, dated June 19, 1877, which states that "Dr. A. B. Crosby has just given at the Academy of Medicine an exposition of what he terms *the automatic method of reducing luxations of the hip.*" From this letter I extract the following:

After flexion of both thighs, "Dr. Crosby then placed his hands under the calves of the legs, quite near the knees. . . . Raising the pelvis a short distance from the floor, the head of the bone at once slipped in. He explained that in this procedure the patient was made to perform the reduction himself, a sort of *felo-de-se*, as he termed it, the weight of the body supplying the extension, while the counter-extension was made by the operator.

"The method was first described to him by a friend of his in Vermont, Dr. J. G. Allen, who had hit upon it accidentally, about two years ago, while in the act of lifting a patient suffering from this dislocation." . . . "In Dr. Bigelow's admirable monograph on luxation of the hip (a copy of which, strange to say, he found it difficult to lay his hands on in New York), he has found that the same position was used in a number of instances there recorded, but the method pursued was always different from that which he [Dr. Crosby] had ventured to call the automatic." (*Phil. Med. Times*, June 23, pp. 447, 448.)

In connection with these remarks of Dr. Crosby, I have only to say that it is a little difficult to see why Dr. Crosby flexes and lifts both thighs. He thus loses half of the counter-extending weight of the body.

Dr. Bigelow flexes only the dislocated thigh, and suspends the body by that alone. Otherwise, Dr. Crosby's alleged novelty is identical with the method fully described by Dr. Bigelow in his monograph. It is the method preferred by him, and I have repeatedly seen it efficient in his hands. It has been also used in England and credited to Dr. Bigelow.

His description of this method is as follows (see "The Hip," H. C. Lea, Philadelphia, 1869, p. 46). As the work is out of print, I have copied it.

"Reduction of the Dislocation upon the Dorsum.—This dislocation may be equally well reduced by traction or rotation.

"*By traction.* 1. Lay the patient, when etherized, on his back upon the floor, bend the limb at the knee, flex the thigh upon the abdomen, adduct and rotate it a little inward to disengage the head of the bone from behind the socket. The Y ligament is then relaxed. . . . The thigh need only be forcibly lifted or jerked towards the ceiling with a little simultaneous circumduction and rotation outwards, to direct the head of the bone towards the socket.

"2. The surgeon's foot (divested, it

need hardly be said, of boot or shoe) may be placed on the anterior superior spinous process of the ilium, or on the pubes, to keep the pelvis down, while he pulls the flexed knee up. Or, in the same way, while assistants suspend the pelvis a few inches from the floor, by a strip of board passed transversely under the calf near the ham, the surgeon may with his foot thrust the pelvis down into its place."

The mere weight of the body is not always sufficient to accomplish the object. Dr. Bigelow elsewhere shows that forcible traction is sometimes required.

Boston, June 30, 1877.

FALLACY OF TROMMER'S TEST.

BY DR. GEORGE HAY,

Analytic Chemist.

IN these days, when the chemical examination of urine forms such an important factor in the diagnosis of disease, it is plain that the value of such examinations will depend upon the accuracy with which they are performed. This will become evident as I proceed. A medical friend here brought me a few days ago a sample of urine, and requested me to examine it for albumen and sugar. The urine was of high specific gravity. In his presence I examined it for albumen, and found that to be entirely absent. I now applied Trommer's test for sugar in the usual way; that is to say, I poured a quantity of the urine into a test-tube, added two drops of solution of sulphate of copper, and followed this by excess of solution of potash. Upon boiling, a precipitate, quite abundant, of suboxide of copper was obtained at once. My friend was astonished. I asked him whether he had been administering any chalybeate preparation, and was told that he had been administering phosphate of iron and quinia. I advised him to discontinue the use of medicine altogether for a week, and then to bring me a fresh sample of the urine. He did so, and I again applied Trommer's test, with the same result as before. I performed the same experiment three times in succession, and always obtained a precipitate of suboxide of copper. Here then was a case in which ninety-nine out of a hundred medical men would have diagnosed *diabetes mellitus*. But I remembered that many other substances besides sugar will reduce oxide of copper in alkaline solution, and for this reason I proceeded to examine in a very different manner. A quantity of the urine was evaporated to dryness on the water-bath. The dry residue thus obtained was treated several times with boiling absolute alcohol, and the alcoholic solution filtered through paper. This alcoholic solution was now evaporated to dryness, and kept at 212° F. for some time, until all alcohol was completely expelled. The alcoholic extract was then dissolved in water, and the aqueous solution passed through a filter. By this means, had there been any grape sugar in the urine, it would have been separated from substances likely to interfere with the test. I now applied Trommer's test to this aqueous solution, and found that sugar was *entirely absent*. I repeated this method of examination three times with the same urine, and in no instance obtained any precipitate whatever. Wishing now to make an *experimentum crucis*, I took a quantity of the same urine and *added* to it a minute portion of grape sugar. I evaporated to dryness, and proceeded exactly as described above. On now applying Trommer's test I obtained at once an abundant precipitate of suboxide of copper, although I had taken care to add a very small portion of the sugar. It thus appears to me that Trommer's test as usually applied only affords negative and not positive evidence: in other words, if no precipitate of suboxide of copper is obtained, then it may be safely concluded that sugar is absent; but the obtaining of a precipitate as the test is usually applied is no evidence of its presence. I am thoroughly convinced that in a multitude of instances a poor patient has been virtually condemned to death by his physician, on the evidence afforded by Trommer's test as usually applied, when in fact there was not a particle of sugar in his urine. I consider Trommer's test absolutely fallacious and unreliable *as it is usually applied*. The high specific gravity of this urine was due to the fact that it was loaded with urea.

45 South Diamond St., Allegheny City, Pa.
May 25, 1877.

The District Medical Society of Camden has recently published its fee bill, which fixes the honorarium of an office visit at from one to five dollars, of an ordinary visit at from two to five dollars, and of a consultation visit at from five to fifty dollars.

TRANSLATIONS.

ACTION OF BUTYLCHLORAL.—H. Windelschmidt (*Centralbl. f. Chirurgie*, No. 14, 1877) confirms Liebreich's observations regarding the pharmaco-dynamic peculiarities of butylchloral. Its effect upon rabbits is hypnotic in small doses; in larger quantity it acts as an anæsthetic, the anæsthesia beginning at the head and extending downwards until the whole system is deeply narcotized. Minimal doses increase the frequency of respiration, small doses diminish it, large doses are followed by respiratory paralysis. Small doses do not alter the pulse-rate; even larger doses affect this only slightly, compared with the change in respiration. Small doses, up to .02 centig., hypodermically injected, increase the rate of both pulse and respiration, particularly the latter. Doses of .06 centig. cause the respiration to decrease greatly in frequency, while the pulse remains unaltered. Larger doses (.08 centig.) reduce the pulse to one-half, the respiration to one-fourth its normal rate. A dose of one grm. causes profound narcosis accompanied by general anæsthesia. The temperature rises at first, but later sinks decidedly. X.

ANTISEPTIC PROPERTIES OF BICHROMATE OF POTASSIUM.—M. Lanjorrois (*Le Mouvement Méd.*, 1877, p. 310) has found that the addition to water of one per cent. bichromate of potassium will prevent the formation of vegetable organisms, even when the solution is exposed to the open air. Meats, urine, gelatine, etc., are all preserved intact. The addition of $\frac{1}{1000}$ part bichromate to beer prevents its turning sour. A piece of meat preserved in an aqueous solution of bichromate during three months presented the appearance of gutta-percha. Contrary to what is observed regarding meat preserved in fuchsine, dogs refused to eat meat thus preserved. X.

HYPODERMIC INJECTION OF ETHER.—Dr. Ortille (*Bull. Gén. de Thérap.*, 1877, p. 38), being called to see a child of twelve who had injured her head by a fall, found her unconscious, pulse small and irregular, no bleeding at the nose, jaws tightly closed, pupils *strongly contracted*. He injected ♏xv of ether under the skin of the sternal region, which caused a swelling the size of a pigeon's egg. This he gently manipulated until it was entirely absorbed. Within five or six minutes the pulse returned and the pupils became dilated. A few teaspoonfuls of brandy were given, and in a couple of hours the child was conscious. No discomfort ensued from the injection. In similar cases the pupil is the guide, but the injections of ether should not be continued if the temperature rises. Cerebral anæmia is the condition which calls for this treatment.

INJECTION OF LIQUIDS INTO THE BLADDER.—At the same meeting of the Society, M. Duchaussoy alluded to a communication in one of the journals in which the question was asked, "Is it possible to introduce liquids into the bladder without the aid of a catheter?" In reply, M. Duchaussoy asserted that nothing is easier. A caoutchouc bag of eight or ten ounces' capacity, provided with a tube terminating in a cone-shaped nozzle, can be introduced into the meatus, and with very moderate pressure the amount of fluid necessary can be forced into the bladder. The method is useful when the urethra is greatly inflamed. X.

CHRONIC ANÆMIA FOLLOWING NERVOUS AND GASTRIC DISTURBANCE OF FIVE YEARS' DURATION—TRANSFUSION—CURE.—At a recent meeting of the Acad. des Sciences, M. Oré read the following notes of a case coming under his observation, cast in the form of a series of conclusions. 1. The cure was obtained with only forty grammes of blood (ʒx), the patient having suffered five years. This goes to show that the quality of the blood infused is a more important factor in these cases than the quantity. 2. In order that the operation should be performed without subsequent complications, puncture should be made without laying bare the vein. 3. The transfused blood acts in two ways: first, in stimulating by its globules the organs which have become reduced to a condition of complete atony; second, in determining a proliferation of new globules. This double action was observed in a striking degree in the case of the patient under consideration. The very evening after the transfusion the patient's appetite returned to a remarkable degree, the vomiting was arrested, and the neuralgic pains were lessened to such an extent that the usual daily hypodermic injections of morphia were discontinued. As to the proliferation of globules by transfusion, which M. Oré has long maintained in opposition to the views of Worms,

Muller, and the German school, it is, he thinks, incontestably demonstrated by five enumerations of the blood-globules made in this case. Already in Behier's patient Lionville observed a constantly increasing augmentation of the globules: January 29, 850,000 globules were counted, February 13, 1,850,000, March 4, 2,029,500. "These figures demonstrate beyond doubt," said Behier at the time, "that, life being reanimated by the injection of tonic blood, the manufacture of new globules went on progressively." It may be said that the function of digestion having been so rapidly established, the augmentation of the blood-globules was the result of a properly regulated alimentation and a more complete nutrition. To be sure, the improvement in digestion may have aided the formation of new globules; but this alone would not explain the rapid and decided augmentation.—*Bull. Gén. de Thérap.*, 1877, p. 367. x.

Influence of Baths of Various Temperature upon the Blood-Pressure.—Rewnow (*Centralbl. f. Chirurgie*, 1877, No. 17) experimented upon curarized dogs and found that baths of 30° to 35° Centigrade (86° to 95° F.) have but little influence upon the blood-pressure. Baths over 35° cause a quick, transitory increase, followed by a lowering of the pressure. If the animal after a bath at 35° or above is allowed to remain in the ordinary atmosphere of the room, or if it is drenched with cold water, the blood-pressure increases, and alternates with a lowering of pressure which is more marked the colder the affused water is and the higher that of the bath was. Baths under 30° cause increase of blood-pressure until the temperature of the body begins to fall. A continuously heightened temperature of the body from baths of over 35° increases the blood-pressure. Section of the nervi vagi did not alter the effect of the baths, but section of the spinal cord on a level with the second cervical vertebra was followed by a lowering of pressure which continued unaltered in spite of baths and cold affusions. From this the author draws the conclusion that in alteration of blood-pressure by hot baths and cold affusions the vaso-motor centres are excited reflexively through the sensory nerves. x.

Development of Phthisis by the Ingestion of Tuberculous Matters.—M. Metzquer read before the Académie de Médecine at a recent meeting the result of experiments which he has made upon this subject. He arrives at the following conclusions:

1. Tuberculous matters ingested determine after a certain time phenomena of irritation and inflammation of the intestinal canal at points where these matters have been detained any length of time: this initial circumstance is indicated by diarrhœa and progressive emaciation.

2. Intestinal thromboses are observed, resulting from hyperæmia and embarrassment of the circulation. These thromboses may give rise to emboli.

3. The inflammation may be ulcerative, and then a path is open—and it is the only one—to infection, with all its consequences.

4. *Pneumonie vermineuse*, which certain experimenters assert can be easily differentiated from tubercle, cannot at one point be distinguished, and, according to the ablest micrographers, has frequently been a cause of error in the question. In no case can the ingestion of tubercular matters be regarded as a means of inoculation of phthisis.—*Bull. Gén. de Thérap.*, 1877, p. 470. x.

Atrophy of the Cerebral Convolutions consecutive to Old Amputations of Members on the Opposite Side (*Centralbl. f. Med.*, 1877, No. 15; from *Gazette Médicale de Paris*, 1877, No. 5).—Since the appearance of Vulpian and Dickinson's works it has been known that after amputations that portion of the spinal cord from which the nerves of the amputated part arise become atrophied to a not inconsiderable degree. Whether, however, the corresponding portions of the brain atrophy has not as yet been determined, though the following experiments by Pitres add to our knowledge in this respect. Pitres exarticulated the fore-leg of two kittens at the shoulder-joint. Both animals developed well until twenty-eight months after the operation, when they were killed. Post-mortem examination gave the following results. The spinal cord showed in both cases a decided atrophy on that side of the cervical enlargement corresponding to the exarticulated limb. This atrophy extended over a length of from three to four centimetres. Above and below, the spinal cord was perfectly symmetrical. The brains of these animals showed no signs of atrophy or other abnormal change. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JULY 21, 1877.

EDITORIAL.

AN OLD BOOK.

TO those of our readers who are kept in the city these dog-days because they have not much practice and therefore cannot afford to leave what they have, or are detained amid radiant bricks and mortar because they have so much of practice that they cannot afford to leave it, we commend for an idle hour an old book (printed in 1819) which has recently fallen into our hands. This naïve "Statement of Improvements in the Theory and Practice of Medicine," published by "Thomas Ewell, of Washington City, and Surgeon to the United States Navy," in 1819, opens with a philippic upon the University of Pennsylvania, which is especially directed against the power vested in the trustees to appoint professors. It is an early page of the now old story, the discussion whether a medical school should be managed solely by its faculty, or, so far as appointments are concerned, by a board of trustees.

The chapter which will be read with most wonder and profit is a letter containing "Remarks concerning Generation," to which is added the "Best Plan for Preventing Excessive Population." In this is put forth the discovery that "oxygen" is necessary for impregnation. The importance of the rôle played by "vital air" in the supreme physical act of the human organism, and the antipathy of azotic gas to the human sperm, is upheld by asserted facts and reasonings which in their nature and manner remind one forcibly of the lucubrations of the supporters of the germ theories of disease. The astonishing number of births among the negroes of the South is shown to be due to their amorous fondness for the daylight and abundant air of warm, sunny hill-sides, and the barrenness of some married women to the modesty which exposes the palpitating, unformed life to the "air of beds late at night becoming so foul as to extinguish burning tapers when introduced." We call the attention of some of our enthusiastic admirers of the therapeutic powers of oxygen to this new use of the agent. Dr. Ewell is a follower of Malthus, but alike for those who want and for those who do not want children he has solved the problem. By the sterile, longing for the spring of maternal love to gush forth, embraces are to be received in a tub of oxygen; for the overfertile, oppressed with the cares and responsibility of multiplied offspring, a vessel of carbonic acid is to be the faithful companion of the chamber; and thus happiness is to be restored to the fallen race of Adam.

THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

THIS Association has at last, chiefly through the efforts of Prof. Edward Curtis, of New York, taken permanent form by the adoption of constitution, by-laws, and articles of confederation. Although the articles of confederation are so worded that they do not always really command what they seem to at first sight, and although they can, and undoubtedly will, in some important respects be rendered null, yet we believe good will be accomplished if a sufficient *esprit de corps* can be maintained and a sufficient outside pressure of public opinion steadily kept up. The enthusiasm of the hour of signing will hardly burn so brightly under the winter snows of self-interest, and there is too much force in the excuse of the old tippler, "All signs fail in a dry time," to allow the medical press to relax its efforts. In one very important particular the articles of confederation are so worded that they cannot be honorably avoided, and

will assuredly pinch some of our Eastern colleges. In the requirements of graduation it is positively demanded that the candidate file a certificate from some respectable physician, showing that he has gone through three years of study. We trust a strict watch will be kept upon the practices of the signing colleges upon this point.

In regard to fees, no promissory notes or promises to pay are allowed to be accepted, but fees may be remitted or reduced for five per cent. of the class by the faculties, and indefinitely by boards of trustees. It is evident how these clauses will conjointly act. A student offers a promissory note; with dignity the dean replies, "We can't take this, but"—studying well the possibilities of the case—"we will reduce your cash payments five, ten, twenty, thirty, or forty per cent.," according as his judgment measures the pocket of the aspirant. Plainly, this does not touch in any way the underbidding, the huckstering of tickets which have been one of the disgraces of medical education in this country. At the best, the trade is simply put on a cash basis.

LEADING ARTICLES.

DIALYZED IRON.

FOR administration by itself as a pure chalybeate, the new preparation known as dialyzed iron leaves almost nothing to be desired. It is a clear, neutral, very deep wine-colored liquid, free from taste and apparent astringency, and bearing perfectly dilution with pure water, although water containing salts precipitates with it: our Schuylkill water will sometimes precipitate it. It is undoubtedly a powerful chalybeate. In at least one case we know of, it was well borne after various other preparations of the metal had been abandoned on account of the obstinate constipation they produced.

It has long been known that an aqueous solution of ferric chloride is capable of dissolving the recently precipitated ferric hydrate, and that by evaporation a solid soluble compound or mixture may be obtained. In this way one molecule of the chloride may readily be made to join with from five to seven of the oxide. There is some difference of opinion as to whether this is a chemical combination or merely a mechanical mixture; but it certainly facilitates writing to speak of the compound as an oxychloride.

Dialyzed iron is made by precipitating ferric chloride with diluted water of ammonia, washing the ferric hydrate which falls, dissolving it in a solution of ferric chloride, and placing the result in a dialyzer. Here the iron solution is separated from water by a parchment membrane, and is gradually deprived more or less completely of its chlorine by the passage through the membrane of a chlorinated compound.

It was asserted originally by Graham, the discoverer of dialyzed iron, that "mainly muriatic acid passes" through the dialyzer, and that the iron is left in the form of a soluble colloidal ferric hydrate. This hydrate has, however, never been obtained entirely free from chlorine, and it seems most probable that even in Graham's solution the iron existed as an oxychloride. Further, the solution obtained by Graham was not permanent, gelatinizing with separation of ferric hydrate in about twenty days. The solutions now in the market under the name of dialyzed iron are permanent, and must contain more chlorine than that of Graham; so that it seems almost certain that the iron is in the form of a very basic oxychloride.

As already stated, dialyzed iron is precipitated by various salts. With arsenical preparations it acts with great rapidity. Judging from its behavior in the test-tube, it is even a better antidote to the poison than is the freshest precipitated oxide. Experiments upon animals are, however, necessary before a final judgment can be reached upon this point.

The London chemists Messrs. Squire state that they introduced dialyzed iron as long ago as 1869; and it has been imported both of French and German origin. Many of these foreign products have been shown to be comparatively worthless, having been either not at all dialyzed or very imperfectly so. We are, therefore, very glad that several of our Philadelphia firms have energetically taken the matter in

hand. The only sample submitted to us is that of John Wyeth & Brothers, which appeared to be all that could be desired. In examining a preparation the possession of the following qualities should be attended to: transparency, precipitation by feeble saline solutions, and freedom from distinct taste and from any acid reaction.

CORRESPONDENCE.

NEW YORK LETTER.

New York, July, 1877.

To the Editor of the Phila. Medical Times:

DEAR SIR,—An unusually interesting case of, apparently, *reflex spasm* was brought before the Neurological Society at its June meeting, by Dr. Spitzka. The patient was a man of about fifty years of age, and the spasm, which always accompanied inspiration, occurred at irregular intervals, and, as Dr. Spitzka pointed out, mainly affected the trapezii and scaleni muscles. The platysma myoides was developed in a very remarkable manner, and the manner of its action was beautifully exhibited, not only at the time of the spasm, but also during the intervals between the sudden and momentary paroxysms. The history given was simply that five years ago he began to be troubled with cough, and about the same time the above-mentioned nervous phenomenon became developed. Since then he had made the round of the various colleges and clinics, but had never been able to obtain any relief from the troublesome affection. Three years ago Dr. Alonzo Clark had given it as his opinion that the spasm was occasioned by a tumor, probably not aneurismal in character, situated behind the manubrium of the sternum. Some specialists in neurological science had thought the spasm to be choreaform in its nature, and under this supposition the patient had been subjected to a prolonged course of zinc and arsenic, but without deriving any benefit therefrom. Dr. Spitzka was disposed to accept Prof. Clark's explanation of the trouble, and said that he had found sufficient dulness on percussion, extending into the left infra-clavicular space, to convince him that there was a tumor present. The latter he believed to be probably of a scrofulous character, since it seemed to be at present gradually diminishing in size under the use of the iodide of potassium, the area of dulness not being as extensive now as it had been formerly. He thought that aneurism might now be safely excluded, for if this had been present some further signs would in all probability have been developed by this time. All observers had noticed that there were no abnormal murmurs about the heart. The spasm he regarded as analogous to hiccough, and he believed it to be reflex in its nature, because all the muscles affected were supplied by the cervical plexus.

Dr. E. C. Seguin, President of the Society, stated that the case had at one time been under his charge, and that he was responsible for the diagnosis of choreaform spasm. As had been stated, however, all treatment under this supposition had proved futile. The patient had been sent to him by Dr. Andrew H. Smith, of the Throat Department of the Manhattan Eye and Ear Hospital, who had made a most thorough examination of the larynx and had found that there was no paralysis whatever of the vocal cords. The laryngeal muscles, however, were largely involved in the spasm, and he regarded the latter as mainly in the range of the spinal accessory nerve. With all due deference to the opinion of Prof. Clark, he confessed that he had never been able to convince himself that there was sufficient dulness on percussion to indicate the presence of a mediastinal tumor.

After a discussion of Dr. Pallen's paper on "*Menstrual Neuroses*," read at a former meeting, Dr. James C. Kiernan, of the Ward's Island Lunatic Asylum, read a paper on "*The Patho-Psychology of Alcoholism and its Relation to Paresis and Epilepsy*." In the outset he remarked that some observers who were inclined to a rather sentimental view of the subject gave to alcoholism a position about midway between the neuroses and insanity, but that he could not regard this as by any means proved.

It was no doubt true that alcoholism was a frequent cause of insanity; but we should not rely upon statistics for the substantiation of such an assertion, for these were very deceptive. The fact could only be established by clinical observation. An agent capable of causing acute mental aberration might undoubtedly result in chronic trouble of a similar character. It was true that dementia not unfrequently resulted where alcoholism was present; but we should remember that heredity and weakness of the will often had as much to do with the causation of this state as the latter. Dr. Kiernan enlarged upon the strong analogy existing between alcoholism and paresis and the extreme difficulty there sometimes was in making a diagnosis. It was not uncommon for acute alcoholism to be mistaken for paresis, but occasionally mixed cases were met with in which both were present. Alcohol was without doubt to be considered an exciting cause of paresis, but, after the most extensive observation, he had been unable to find that there was any connection between alcoholism and epilepsy, as was contended by some.

At the last meeting of the Medical Journal Association, Dr. S. Henry Dessan read a suggestive paper on "*The Value of Small and Often-Repeated Doses*." His attention was directed to this subject, he said, by the admirable work of Sidney Ringer on Thera-

peutics. He has found the method an agreeable as well as useful one, particularly in the case of children, and he has had an opportunity of carrying on his investigations in the New York Foundling Asylum and the district service of the New York Dispensary. In these he has been guided partly by the recommendations of Ringer and other recent authorities, and partly by ideas occurring to himself. The following are some of the results obtained. In the vomiting of infants and young children, due to various causes, he found the wine of ipecacuanha in one-drop doses every hour of great efficacy, and it was also very useful when diarrhœa was present. Fowler's solution in the same doses proved equally serviceable in the vomiting after a debauch, and in the morning vomiting of chronic alcoholism, either alone or combined with from three to five grains of capsicum. In the vomiting incident to some forms of phthisis and chronic bronchitis, he found alum in two- to five-grain doses, repeated every one, two, or three hours, to act most happily. After pertussis there was frequently left a cough, without much bronchitis, and occasionally accompanied with spasm of the larynx, which continued for a long time, and he had found that this also was promptly relieved by alum, in from one- to three-grain doses, which might be given in syrup of wild cherry. In a form of bronchitis occurring in children, alluded to by Ringer, which was characterized by loud wheezing and asthma-like respiration, and which was chiefly troublesome at night, tartar-emetic proved the most efficient remedy. The strength of the solution used was from one to three grains to a pint of water, and of this a teaspoonful might be given every hour or so. In continued bronchial catarrhs, especially if accompanied by diarrhœa, it was also of great service.

In syphilis, when there was such severe cephalalgia as to render the patient perfectly miserable, one-sixtieth of a grain of calomel, given every hour, acted like magic. In gastro-intestinal catarrhs in children he had used calomel in one-sixteenth of a grain doses successfully; but better still was the hydrargyrum cum creta in one-sixth-grain doses. When the stools were of a mucous character, whether containing blood or not, corrosive sublimate was indicated. It was given in a solution of the strength of one grain to sixteen ounces of water, a teaspoonful being ordered every hour. In gonorrhœa, when the case was seen within twenty-four hours from the commencement of the attack, the disease was promptly cut short by injections every hour of a solution of sulphate of zinc of the strength of only one grain to the pint of water.

Dr. Dessan said he believed he had been the first to use copaiba in urticaria, and he had been induced to try it in one-drop doses every hour, on the ground of *similia similibus curantur*. In retarded menses he had used one-drop doses of the fluid extract of ergot, and in dysmenorrhœa five-drop doses of fluid extract of hamamelis, with success; while in uncomfortable flushes at the time of the menopause one-tenth of a drop of nitrite of amyl had been of service. The tincture of aconite in one-drop doses was exceedingly useful in scarlatina, and tincture of cantharides in the same doses in subacute vesical catarrh. The mineral waters so much in vogue at the present day are also an illustration of the value of small doses, since the active salts in them were in exceedingly minute quantities. Though much of what he had said, Dr. Dessan remarked, might seem to favor the doctrines of homœopathy, he had seen too many cases of intermittent fever cured by large doses of quinine, too many cases of dysentery cut short by drachm- or half-drachm doses of ipecac, and too many cases of delirium tremens at once relieved by a tablespoonful of tincture of digitalis, to commit himself to any such dogma as that. If asked upon what principle he gave these remedies, he would reply, On that of actual experience. Many drugs undoubtedly had a primary stimulating effect if given in small doses, while in larger doses they were powerfully sedative.

He believed with Stillé that the effects of medicines could not be properly determined upon healthy subjects, because in them there was lacking an important element which might modify it very greatly. In the light of recent investigations by various authorities he thought it would be a good plan to have the doses of all the agents in the Pharmacopœia so regulated as to produce the greatest possible effect with the smallest possible quantity, and that if this was done it was probable that the doses of many disagreeable medicines would be materially diminished.

A curious mistake in diagnosis was recently made by two practitioners in good standing here, one of them being in the service of the Board of Health. A young man of Mott Haven was taken ill, suddenly, while visiting a family in 143d Street, and a physician being summoned he pronounced the case one of smallpox. Fearing that the children might take the disease, he had the patient transferred across the street to a house where he had been boarding. The proprietor of the latter was naturally indignant when he learned the character of the affection, and made a complaint to the Board of Health. A sanitary inspector was then sent to the house, and he also pronounced the case one of smallpox, and forthwith had the patient taken to the hospital for this disease on Blackwell's Island. Arrived there, however, it was found that he was suffering from merely an ordinary attack of measles; and the man now thinks of bringing a suit against the officer of the Board of Health for needlessly subjecting him to the dangers of the pest-house.

Up to within the last two weeks the health of the city has been exceptionally good ever since the first of the year, none of the contagious diseases being very prevalent, except scarlatina, and, what is quite unusual in New York, the number of births each week being in considerable excess of the deaths. During the week ending June 30, however, the number of deaths ran up to 569, or 147 more than during the week previous, while the number for the week ending to-day will probably be more than 600. These are pretty large figures, but not for this season of the year. Though the temperature has not been very high, its influence as a factor in the increased death-rate is very evident. Among children under five years of age there are 159 more deaths in the week ending June 30 than in the week ending June 23, and there were 118 more deaths in tenement-houses than in the previous week, 101 of this number being from diarrhœal diseases. The total mortality among children under five years of age was 354, while in the week ending July 1, 1876, when the weather was considerably hotter, it was but 333. At the last meeting of the Board of Health, President Chandler stated that the visitation by the auxiliary corps of district physicians, organized last summer, would be begun as soon as the necessary funds for the purpose could be secured. The board also proposes to prepare a circular to be printed in English and German and distributed among the tenement population, giving plain directions in regard to the precautions to be taken to avoid sickness during the summer, and suggesting proper food and the means of securing fresh air. In the mean while energetic measures are being taken by various institutions and private individuals to endeavor to diminish the summer mortality among the children.

The first excursion this season of the floating hospital of St. John's Guild was made on Tuesday, the 3d, with 800 passengers. Each trip costs about $250, and fourteen have already been subscribed for by business houses of the city. They are to be made on Tuesday, Thursday, and Saturday of each week. At the Sea-Side Sanitarium, at Far Rockaway, there are now about eighty sick children, and it is expected that the number of little patients will be increased to 300 or 400. At this excellent institution the surf and still-water bathing, pure air, wholesome food, and kind treatment result in a great deal of good. The New York Free Dispensary for Sick Children has organized an efficient district service for the summer months, and the Children's Aid Society is now employing eight or ten visiting physicians, who supply medical attendance, drugs, and nutritious food free to the poor. Dr. E. G. Janeway is the consulting physician in this service.

Mrs. Osborne, the lady who last year purchased Cozzens's Hotel, at West Point, for a convalescent home for the New York Hospital, but was prevented by legal obstructions from consummating her design, has now presented a beautiful building, in East 26th Street, to the Training-School for Nurses at Bellevue Hospital. It contains a drawing-room, dining-room, kitchen, laundry, reception-rooms, and forty-eight sleeping-apartments for the accommodation of the fifty-two young women now connected with that institution. This admirable school has made a complete revolution in the nursing at Bellevue and many other hospitals. It was organized in 1873, with a lady superintendent and six nurses, and since that time similar schools have been successfully put into operation in Philadelphia, Boston, New Haven, and other cities, as well as at Charity Hospital on Blackwell's Island.

Six of the house-staff of Bellevue were recently temporarily suspended for refusing to take charge of an obstetric case, in the Maternity connected with the hospital, in the absence of the ambulance-surgeon, under whose care the case properly belonged; but they were reinstated on apologizing to the Commissioners of Charities.

The subject of apothecaries' scales has been investigated by Dr. H. G. Piffard, who was one of the most earnest advocates of the bill, recently before the Legislature, requiring the inspection of all druggists' weights and measures, and he found that the scales used by a large number are grossly inaccurate,—in one instance the balance not being turned by a weight of five grains. Many of the weights are rough and badly finished, and are sold at the cheap rate of a set of thirty-five pieces for thirty-eight cents.

It seems that our grandiloquent friend Dr. Hartt is not to have the great Stewart building for his Hospital for Chronic Diseases after all, but that the original design of making it a hotel for women is to be carried out. It is to be opened during the coming autumn, and it will be the aim of the management to place the rooms at prices only a trifle above those now paid by working-women in crowded and unhealthy tenement- and boarding-houses. Whether any females of Israelitish extraction will be admitted has not yet been announced.

P. Brynberg Porter.

Sleeplessness relieved by Electricity.—Dr. Vigouroux affirms that he has employed with great success the electric current for the relief of that form of sleeplessness under which many nervous patients are known to suffer. Large flat electrodes, covered with chamois leather, are applied to the temples, and a weak current (from three to five plates) is passed for a very short time. If the application be made for the sake of experiment, in the morning it will be found that the patient continues drowsy during a great part of the day. Headaches connected with organic disease are not relieved by the current.—*Medical Examiner.*

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, MARCH 22, 1877.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

Pancreatic induration resembling scirrhus; involvement of mesentery, supra-renal capsules, and tissue surrounding kidneys: similar growth upon heart. By DR. DE F. WILLARD.

A. B., widow, æt. 69. Case only seen at time of autopsy. About eighteen months since, commenced to suffer with pain in epigastric region, accompanied by various dyspeptic symptoms, such as occasional vomiting, nausea, constipation, loss of appetite, etc. She was under the care of various practitioners, so that her history is not very complete, but the course of the symptoms appears to have been variable,—the pain at times being severe in character, shooting throughout the whole upper portion of abdomen, while at other seasons the discomfort only amounted to a general soreness and aching. The digestive powers gradually failed, jaundice occurred for several weeks, emaciation progressed, and the patient died from exhaustion.

About two weeks previous to her death a dense mass occupying the lower epigastric region was discovered. Her urine is said to have contained no albumen.

The case presented no evidences or marks of constitutional syphilis; although the character of her husband would not render such a contamination impossible.

Autopsy, forty-eight hours after death.—Considerable amount of fat still remaining in abdominal walls. No effusion or other signs of general peritonitis. Stomach, spleen, and liver normal. Pancreas enlarged to about twice its normal size, extremely hard, firmly fastened to duodenum, and also at one or two points to ileum. Backwards and downwards the dense induration extended in a solid mass, binding the organ firmly to the mesentery, and from thence the hardening continued backwards to a large mass occupying the posterior portion of the abdomen, which afterwards proved to be the entire surrounding connective and fatty tissue enveloping both kidneys. This tumor throughout its entire extent was of extreme density, and was capable of being moved slightly as a solid whole. Upon further dissection, the mesentery was found to be greatly thickened, the induration not being confined to the glands, but involving the whole connective tissue. Both supra-renal capsules were implicated in the growth, being enlarged and hardened. The right kidney was larger than usual, but was of good color, and bore the normal relation of medullary to cortical portion. The surrounding tissues were greatly thickened and compacted by the growth, but upon the left side this condition was more evident. The induration here was very marked, and it was only by tearing the structure of the kidney that separation could be effected between the capsule and the surrounding mass. On the left side nearly all traces of normal renal structure had disappeared, their place being occupied by depots of pus and softening tissue. With such extensive inflammatory changes, no peritonitis had apparently been awakened.

Upon section, the pancreas cut with the hardness of a scirrhous mass, and presented the ordinary appearance of that disease, save that at certain points there were small white deposits. But little normal pancreatic structure remained, the induration occupying the entire organ. A section of the mesentery presented the same appearances.

Lying in the right auriculo-ventricular groove was a nodule, of the size of an almond-shell, dense and firm, which, upon being laid open, presented to view the same characteristics noticed in the other organs. The atheromatous coronary artery ran directly through this growth.

Report of the Committee on Morbid Growths.

"A microscopical examination of the specimen presented by Dr. Willard, which was situated in the interventricular groove of the heart, surrounding one of the coronary arteries, shows it to consist of an infiltration of granulation-cells, which in places have been converted into spindle-shaped cells; also fasciculi of fibrillated connective tissue are seen. The structure would indicate the growth to be the result of a simple inflammatory process. An examination of the pancreas and mesentery from the same case demonstrated a similar structure.

"April 12, 1877."

Acute lobar pneumonia, beginning at right apex. By FREDERICK P. HENRY, M.D.

O. C., æt. 34, was admitted to the Episcopal Hospital on March 5. About one week before admission he had taken cold through exposure to wet while working at the coal wharves.

On admission he was very weak, although able to walk to his bed in the ward. I was going my round at the time, and examined him at once. I found dulness at the right apex, with loud blowing breathing and bronchophony, but could not detect any crepitation. The history of the case, and the man's appearance, which was quite robust, contradicted the idea of phthisis, which otherwise the physical signs might have suggested. The sputa, owing to the man's occupation, coal-heaving, were blackish.

The next morning the dulness and other signs of pneumonia referred to had extended very decidedly downwards: crepitation was also detected, although this sign was never prominent.

The inflammation gradually progressed downwards until all but the lower portion of

the lowest lobe was involved. Notwithstanding the progression of the inflammation, the man improved after admission, and continued to do so until the 11th, when he suddenly became worse. The temperature, which hitherto had been but little above the normal, now rose to 103° in the evening. There were low delirium and incontinence of urine and fæces.

On the 13th he seemed better, and was conscious: did not refuse food and medicine, as he had done the day before. Temperature 103°. Pulse 96, strong and full. Respiration 40.

From this time on he grew gradually worse until 2 A.M. of the 15th, when he died. The man's habits were intemperate.

The *lungs* and *heart* were the only organs that came under my inspection, and are now exhibited. The former present in a marked degree the condition known as anthracosis. The greater portion of the right lung is consolidated, but the stage of hepatization, whether red or gray, cannot be determined by the sense of sight, owing to the intense dark pigmentation.

One of the aortic leaflets is ruptured. The perforation is evidently recent, from the fact that the edges of the rent can be readily approximated. The heart was examined when the man was admitted, and no murmur detected. It is not unlikely that the rupture occurred on the 11th, when the symptoms suddenly became graver.

Large white kidneys accompanying phthisis.
By FREDERICK P. HENRY, M.D.

A. E., æt. 32, female, married, was admitted to the Episcopal Hospital on February 21.

On admission the feet and legs and face were œdematous. The urine contained albumen, but no casts were detected at the only microscopic examination that was made. Soon after admission diarrhœa set in, and it was impossible to obtain another specimen of urine, as it was never passed separately. The catheter was not resorted to.

Examination of the lungs revealed the signs of extensive cavities at both apices.

The patient never complained, but insisted that she felt well, even at a time when it was evident she was dying. Her appetite was good. The pulse was remarkably slow, and continued so throughout, never, so far as is known, passing eighty—and usually nearer sixty—per minute. It ceased to beat some hours before death. There was at no time either delirium or coma,—in fact, no sign whatever of uræmic poisoning, unless the diarrhœa can be so considered.

At the *autopsy*, large cavities were found in the apices of both *lungs*, and below these all the numerous appearances of chronic catarrhal pneumonia, such as slaty induration, collapse, œdema, etc.

The *liver* was slightly fatty. The *kidneys* weighed eight and a half and ten and a half ounces respectively, the right being the heavier. The cortical portion is increased in relative amount, and is of a pale yellow. The surface is streaked with arborescent vessels. The capsule peels off readily for the most part, but in spots brings with it fragments of the friable glandular substance. The pyramids are bright red and very sharply defined.

It is, I think, still undecided whether this form of kidney is the result of catarrhal inflammation or is simply a fatty degeneration, and therefore the non-committal term "large white kidney" is most appropriate. Those who admit a primary fatty degeneration state that it is most frequently met with in pulmonary phthisis and in phosphorus-poisoning. This is explained by deficient oxidation of ingested fats, as well as of those that are the result of tissue-metamorphosis, due to a diminution in number of the carriers of oxygen,—in the former case from "anæmia," in the latter from direct destruction of red corpuscles.

In anæmia there is also, besides the deficient oxidation, another cause active in the production of fatty metamorphosis, viz., an increased destruction of albumen. This has been shown by the experiments of Bauer.

The change known as fatty metamorphosis is held by many to be a separation of an amalgam-like combination between the albuminoid and the fatty elements of the cell: therefore any cause favoring destruction of albumen will also favor the fatty change.

In advanced phthisis both these causes of fatty degeneration are in operation.

The slow pulse is certainly a rare event in the history of phthisis. The absence of all signs of uræmia, other than the diarrhœa, and especially the preservation of consciousness up to the last moment, are also significant, and merit an attempt at explanation. It would seem as if there were a certain antagonism between phthisis and Bright's disease in some of its forms; and this I believe to be the case.

It is a commonly-held view that in Bright's disease it is not the urea retained in the blood that gives rise to the symptoms known as uræmic, but its conversion into carbonate of ammonium. Now, for this conversion certain additional equivalents of oxygen are demanded, and, if these are not supplied, uræmic symptoms may not be manifested. In extensive pulmonary disease oxygen is just the element that is most deficient, as evidenced by the above-mentioned fatty degenerations; and thus is perhaps to be explained the antagonism between phthisis and Bright's disease.

Dr. JOHN GUITÉRAS asked Dr. Henry whether the induration of the lung to which he alluded was a marked feature,—whether, in a word, the case could be called one of fibroid phthisis.

Dr. HENRY said that it was not.

Dr. GUITÉRAS said he had asked because he had recently met two cases at the Philadelphia

Hospital, in which Bright's disease of the kidneys had accompanied fibroid phthisis, and he had been led to look up the matter, and had found that fibroid phthisis was not infrequently attended by Bright's disease.

Dr. Guitéras agreed with Dr. Henry, that where these two diseases coexisted, and the affection of the lung became very active, the renal disease seemed to be partially in abeyance. In one of the cases under his observation the symptoms of the latter disease, which had pointed to the fatty organ, had so diminished that he thought the kidney had reached its third or contracting stage. The urine had increased in quantity, the albumen had diminished so that sometimes it was difficult to detect it, and the dropsy had disappeared. He died without uræmic symptoms. The kidney was the large fatty with commencing contraction.

Dr. JAMES TYSON said it was well known that Bright's disease and phthisis are often associated, but he thought it was commonly supposed that the former was a sequel, and presented the albuminoid form of disease, consistently with the view now generally held, that albuminoid disease ensues upon exhaustive drains on the system, as those of tertiary syphilis or suppurating disease of bone from any cause, or from phthisis or even albuminuria itself.

Dr. JAMES C. WILSON said he was reminded by the instance referred to by Dr. Guitéras of a case of chronic phthisis which had died under his care, at the age of 40. The patient, a man, suffered also from Bright's disease. His urine contained albumen with fatty and granular casts. When he first came under observation there were evidences of a cavity at the right apex, but the form of the disease was exceedingly chronic, the man being sufficiently well to do duty as an assistant in the ward, and presenting very few of the symptoms of phthisical or renal trouble. Dropsy was absent or nearly so; the quantity of albumen was slight, although easily recognizable. From the symptoms, Dr. Wilson was led to make the diagnosis of contracted kidney. Here also the tendency of the phthisis was towards contraction. A short time before his death the left lung became affected, a cavity formed, and he died within three or four weeks of secondary miliary tuberculosis. At the *post-mortem* examination it was found that the form of disease was that of the fatty or fatty and contracting kidney. The organs presented the puckered appearance with local atrophy of the cortical substance with contracting and adherent capsule, whilst elsewhere the cortex was thickened and distinctly fatty.

Dr. TYSON said he had at this time under observation a gentleman who had had phthisis for about five years, in whom there was also a small albuminuria with granular and hyaline casts, the conditions usually considered as pointing to the contracted kidney.

In answer to a question of Dr. Guitéras, Dr. T. said the symptoms in this case did not point to fibroid induration of the lung.

Dr. WILSON thought the presence of diarrhœa in Dr. Henry's case might account for the absence of terminal uræmic symptoms.

Partially-closed foramen ovale—sudden death.

By DR. J. T. ESKRIDGE.

The child whence the specimen was derived was 20 months old at the time of its death, and had enjoyed moderately good health previously. On the afternoon of March 9, 1876, it was wheeled in one of our squares for an hour. Although the day was a mild one for the season, it apparently took cold, and was noticed to cough some during the night, but it seemed well on the following morning. After the mother had dressed her babe she was dancing it on her knee, when it suddenly became convulsed and cyanosed, and died immediately. There was no history of cyanosis previous to the occurrence just before death.

The *post-mortem* examination, made on the following day, showed—

The air-passages healthy, save a slight venous congestion of the lungs. There was, however, an imperfect closure of the foramen ovale, the opening being large enough to permit a small-sized lead-pencil to be passed through it. The stomach healthy. Examination of the brain was not permitted.

Could such a condition of the heart cause so sudden a death in a child apparently healthy?

Dr. GUITÉRAS said that this condition is a cause of death in the new-born, but it was doubtful whether death could be attributed to this condition in the present case, for it should be remembered that the *foramen ovale* remains open for some time after birth, and it is rather the direction of the currents of blood from the ascending and descending *venæ cavæ* which prevents the blood from passing over to the left auricle, than the closure of the orifice. It is reasonable to suppose that some sudden nervous disturbance might result in such derangement of the currents of blood that death might occur.

Dr. WHARTON SINKLER said the presence of a patulous foramen ovale did not necessarily imply cyanosis. This condition of the auricular septum is often met with in *post-mortem* examinations of old persons, as illustrated by the case of a woman, 60 years of age, whose heart he had presented to the Society some time ago. Here the opening was sufficiently large to admit a lead-pencil, and there were no symptoms during life which pointed to the condition. He thought that in the absence of an examination of the brain, no condition presented by the specimens shown could be considered as sufficient to cause death.

Dr. TYSON asked whether any other cause of convulsion was found, as undigested food in the stomach. He thought it not impossible that

the convulsion might have produced such a derangement of the currents of blood that the venous blood would thus pass over to the left side of the heart, and thus cause the cyanosis.

Dr. ESKRIDGE replied that no cause of the kind suggested could be found.

Dr. SINKLER said that the fact that convulsions themselves cause cyanosis should be borne in mind.

Dr. HENRY said the question arose as to whether convulsions occurring under these circumstances (with patulous foramen ovale) were more serious than those that occurred, for instance, in the period of dentition.

Dr. HODGE said that too much importance could not be attached to the examination of all organs in making a *post-mortem* examination, especially in medico-legal cases, where the question whether *all* the organs were examined is frequently put.

The causative relation existing between the anatomical arrangement of the tissues at various ages and their morbid growths. By Dr. CHAS. B. NANCREDE. See original communication in current number of the *Times*.

REVIEWS AND BOOK NOTICES.

THE QUESTION OF REST FOR WOMEN DURING MENSTRUATION. By MARY PUTNAM JACOBI, M.D., Professor of Materia Medica in the Woman's Medical College, New York. Boylston Prize Essay, 1876. New York, G. P. Putnam & Sons, 1877.

A very fitting subject for the pen of a woman, if women are to contribute their share to medical literature. It will not do, however, to say that this book is a good one, "considering that a woman wrote it," for it is a remarkable book whether written by man or woman; the sex of the writer, however, being evidently a help to her in the task she has chosen. We can discover little or no traces of that intuition, to the neglect of sound reasoning, for which women are traditionally famous. The most captious critic must admit the solidity of its argument, the depth of its research, the purity of its style.

The plan of the inquiry is purely scientific. Menstruation is studied *ab initio*. The question of rest, and the question of the importance of definite views on the subject, are first discussed. The theories of menstruation are carefully stated and examined; then is shed all the light that the author could obtain from the scientific methods of the day, from the thermometric range in women before, during, and after menstruation, from the sphygmographic register, pages of tracings being given, from the examination of the excretions, and, lastly, from an appeal to women themselves.

In entering into statistical inquiry, some grave difficulties appear. The circular issued contains a series of questions requiring each an answer, but no signature. With the questions asked we have no disposition to cavil. We are not told exactly in what way the circular was distributed, whether to and through the patients of the author, or to the women of certain large workshops, or to ladies in ordinary society, or whether any systematic distribution to reach all classes in equal proportions was even attempted; nor can we at a glance discover, even if the circulars were sent promiscuously, what class of women—the suffering or those free from menstrual pain, the educated or the uneducated—would be most apt to respond: a very important point, since of one thousand circulars only two hundred and sixty-eight answers were obtained. A certain number of well women would ignore it from lack of interest; a certain number of habitually ailing women from lack of energy. To the habitual errors of statistical inquiry is here added the probable error of imperfect representation, as well as the further one of dealing with altogether too limited a number of cases.

The writer, as though to revenge herself upon the male sex, has been as abstruse as possible. The favored few who, having gone over the tables of statistics served up in every imaginable form, feel unsatisfied, can still further satiate themselves with the algebraic method. The chapter on the theory of muscular reserve will be a godsend to the misplaced astronomers and mathematicians who occasionally find their way into the ranks of the profession. Such expressions as $R + F = D$, and $A + A - a + A - a$, at which the average mind shudders, will fill them with unbounded delight; though we doubt whether they really convey any very definite idea to the vast majority of readers.

The author's method of estimating physical condition by the number of miles that can be walked, and the extreme gravity with which she accepts in the answered circulars the respondents' own estimate on this point and reasons upon it, are, we would like to say, amusing. To quote a sentence from p. 50: "In group second, then, seventy persons walk collectively two hundred and twenty-eight miles, an average of three and one-fourth miles, while in group third, eight persons walk eighty-two miles, an average of four and five-ninths." The mind fairly totters under this collective pedestrianism; and one cannot help feeling that, after all, these heroic women may have walked in vain.

The author's analysis of statistics is masterly, but the statistics are too feeble for the analysis. No one can help admiring candor, yet one could scarcely expect to find such an admission as this in such a work (p. 199): "The very highest degrees of sustained attention have rarely been even attempted by women; while the lower degrees, necessitated by the exigencies of every-day life, are fre-

quently followed by a collapse of nervous energy that seems perfectly unaccountable when we consider only the amount of work accomplished, its severity or its difficulty." True, the writer adds in a foot-note that considered "absolutely," whatever that may mean, the amount of such work performed by women is "immense." As a corollary, however, to the sentence quoted above, we would suggest that women should not attempt to read the present volume, lest the effort be followed by a "collapse," not, however, quite unaccountable.

The author considers it just as foolish to account for women's sufferings by "empty generalizations on the abstract nature of the female sex" as it would be to treat any similar male complaint—if we catch her meaning—"upon principles derived from Pascal's lofty aphorisms concerning the nature of man." Her conclusions are opposed to the necessity of rest. Cases of very painful menstruation, as she remarks, will rest because they must; but her grand conclusion is, "There is nothing in the nature of menstruation to imply the necessity or even the desirability of rest for women, where nutrition is really normal," thereby throwing overboard for the sex all the work done lately by Dr. Clark and others, and reducing the matter, very much as Dickens's "contractor of five hundred thousand power" did, to "a question of beefsteaks and porter: so many pounds of beefsteaks, so many pints of porter; those beefsteaks and that porter are the fuel for that young woman's engine." This is truly a startling success for the statistical method; but the women—save them from their own champions!—will surely now have to work harder than ever. We wonder whether statistics could not prove that it injures the shop-girl to sit down occasionally, and whether well-meaning people, philanthropically inclined, may not be taking considerable trouble to do women an immense amount of unconscious injury. E. W. W.

MEDICAL AND SURGICAL REPORTS OF THE BOSTON CITY HOSPITAL. Edited by Dr. D. W. CHEEVER and Dr. F. W. DRAPER. Second Series. Boston, 1877.

This is a very handsome and a very creditable volume of over three hundred pages, beautifully illustrated, and full of clinical papers which represent the furthest progress of medicine and surgery. The first paper, after a very full account of the hospital as remodelled, is one of very general interest, detailing ten cases of empyema, of which no less than ten were successfully treated by incision by Dr. John G. Blake. Of the remaining sixteen papers just half are surgical, and contain the records of an enormous amount of clinical work. Diseases of the nervous system come in for a very large share of attention. Skin diseases are also discussed by Dr. Damon; and Dr. Edes contributes a careful article to the cold-water treatment of typhoid fever. In the brief space allotted it is impossible to analyze the individual articles in the report; but we sincerely congratulate the hospital trustees and the city authorities of Boston upon this volume, which, so far as we know, as a municipal publication has no compeer upon the continent.

A GUIDE TO THERAPEUTICS. By ROBERT FARQUHARSON, M.D. Smith, Elder & Co., London.

This is a small manual, belonging to the class of "cram books," and, therefore, of abominations. It should be said in its favor, however, that it is fuller than most works of the class, and we suppose will be of service to such students as use "Biddle's Materia Medica," giving them in regard to therapeutics much what that work does for materia medica. We notice among its prescriptions some whose chemistry is most complicated. What the patient will receive, when they are administered, is one of those things "no fellow can find out." Witness the mixture—nitromuriatic acid, taraxacum juice, alcohol, chloroform, water, etc.—for "sluggish liver," page 55. Here, we suppose, the acid is resolved into its component acids, which in turn react with the alcohol and the organic matters of the taraxacum juice; but the final result is hard to reason out. We do not want to give too unfavorable an opinion of Dr. Farquharson's progeny: in spite of occasional carelessness or recklessness as to chemistry, it is the best book of its class we know of on the subject, and no doubt will command the favorable judgment of many students.

GLEANINGS FROM EXCHANGES.

HYDROTHERAPY IN SYPHILIS (*The Canadian Journal of Medical Science*, June, 1877).—Dr. Hofmeister, of Pesth, has come to the following conclusions in regard to the employment of hydrotherapy in syphilis:

1. The employment of cold water in syphilis notably increases the general nutrition.

2. The increased energy of digestion facilitates the absorption of alimentary substances and medicines.

3. The preferable mode of administration of mercury is by inunction.

4. Cold water, by promoting absorption, necessitates a smaller quantity of mercury.

5. The augmented activity of the secretory organs prevents the accumulation of mercury in the system.

6. The duration of treatment is much shorter than under ordinary circumstances.

7. Segregation of the patients is not necessary, because the cold water represses their ardor.

And 8. Salivation does not occur, and it is not necessary to suspend the treatment.

Gelsemina (*The Lancet*, June 9, 1877).—Mr. John Tweedie calls attention to the action of gelsemina on the pupil, the ocular muscles, and on accommodation. He says, "The importance which is now very properly attached to correction of anomalies of refraction, and especially abnormal regular astigmatism, necessitates the frequent and almost constant use of atropine to overcome the power of the accommodation for near objects. But against atropine there has always been the serious objection that its effects last so long that great inconvenience arises to the patient from being unable to do near work for several days after the error of refraction has been estimated. If the pharmacopœial solution of sulphate of atropine has been employed, at least eight to twelve days must elapse before the accommodation returns to its normal state. With gelsemina, on the other hand, sufficient accommodation returns within ten to fifteen hours to enable a person to read newspaper type at twelve inches, and within thirty hours the accommodation will have practically returned, although the pupil may remain somewhat dilated, though not quite immobile, for several days. The mistiness and confusion of vision when the eye is fully under the influence of gelsemina is nothing like so great as when atropine has been used.

Practically, it may be stated that gelsemina locally applied readily dilates the pupil, and, when used of sufficient strength, temporarily overcomes the accommodation. It is preferable to atropine in cases where the power of accommodation is not great, where it is necessary to overcome the accommodation for a short time only for the purpose of estimating the degree of ametropia, because its effects are more transient and the confusion of vision during its action is less. To insure paralysis of accommodation within three hours, a solution of at least eight grains to the ounce must be used every fifteen minutes for the first hour, and every half-hour afterwards.

Bone Percussion (*The Clinic*, June 9, 1877).—Bone percussion is practised either for the purpose of detecting painful spots in the bone, or for determining the pathological changes which would cause alterations from the normal sound. Professor Lucke has paid considerable attention to the latter feature, and has arrived at the following results. In the long bones the epiphyses develop a higher note on percussion than the diaphyses. Corresponding bones in healthy individuals emit notes of the same height on either side of the body. Recently-united fractures give a deeper note. Closure of the medullary canal and the deposition of an excessive amount of osseous material can be readily determined by percussion. A lower note is obtained over diseased epiphyses. On the contrary, in a case of chronic gonitis, the diaphyses of the affected tibia presented a considerably higher note than the healthy one of the opposite side of the body. Whether the fingers or the hammer be employed, the limb should be elevated, and for the moment be held up so as to avoid all likelihood of error.

The Antipyretic Treatment of Typhoid Fever (*The Lancet*, June 2, 1877).—Mr. Shirley F. Murphy, resident medical officer in the London Fever Hospital, at the conclusion of an article upon the above subject, states that, although the evidence of German writers is weakened by the want of separation of cases of febricula from undoubted enteric fever, their statistics show a considerable balance in favor of the antipyretic treatment; that although the cases treated in the London Fever Hospital are too few to urge as statistical proof of the efficacy of the treatment, the results on individual cases have been sufficiently satisfactory to lead to its general adoption in that institution. It is not contended that it will insure the recovery of every patient suffering from enteric fever, that it will save life in those patients who die in the second week of their illness from the direct influence of the poison, nor that, when commenced late in the third week, it will undo the injury that has already occurred. It is not believed that it will shorten the period of illness; for it has even appeared to prolong it, although this may be due to the fact that the more severe cases have been bathed,—cases which would under any circumstances have run a long course. But there is a large class of cases which, under the expectant treatment, die at the end of three or four weeks, worn out by the continued pyrexia, and these can without doubt be saved by an early and systematic antipyretic treatment.

The difficulties of the treatment are inconsiderable. An intelligent nurse can be trusted to take the temperature of the patient. Any bath long enough for the patient to lie down in will answer the purpose, while its temperature can be easily regulated by the addition of a pail or two of hot or cold water. A little attention to the time at which the bath is given and to the use of quinine will enable any practitioner to give to it all the time the case requires, without any great interference with his other duties. The treatment is not attended with any danger, the patients rarely object to it, and by some it is liked. The reduction of delirium, the quiet sleep, and the general feeling of comfort it gives the patient, are sufficient to convince the most sceptical that the cold bath is one of the most useful therapeutic agents we have in the treatment of enteric fever.

Voice without Vocal Cords (*The Clinic*, June 9, 1877).—Dr. Jelenffy claims to have succeeded in giving the ability to speak to a patient whose true vocal cords had been destroyed by inflammatory processes. He removed the cicatrized growth which had taken the place of the true cords, and, by the appli-

cation of the induction current to the so-called "false cords" for a period of some months, restored to him a comparatively useful voice.

THE ETIOLOGY OF TYPHOID FEVER (*Virginia Medical Monthly*, May, 1877).—Dr. W. H. Bramblett reports seventeen cases of typhoid fever, carefully considers their causes, and comes to the following conclusions:

1. Typhoid fever often originates spontaneously, or the contagium to which the disease owes its specific character may originate *de novo*.

2. Typhoid fever is essentially a contagious disease, and a case that has originated autochthonously is capable of infecting, directly by contagion, the well who go into the presence of those having the disease.

3. One attack gives immunity from subsequent attacks, and this rule is as invariable in typhoid as in measles or smallpox.

DEATH DURING ANÆSTHETIZATION BY ETHER (*Virginia Medical Monthly*, April, 1877).—Dr. Benjamin W. Robinson reports the death of an elderly lady from whom he was removing an axillary tumor. He gives the subjoined verbatim report of the assistant who was administering the anæsthetic:

"Mrs. M. inhaled the ether without resistance, and without any disturbance of respiration. It was twelve or fifteen minutes from the beginning of the use of the ether before she was sufficiently anæsthetized to commence the operation. The pulse was at this time stronger than before beginning with the ether, and it was regular. After the operation had been begun, I would withdraw the ether, until its effect would begin to pass away, and then renew it, when but few inhalations would be necessary to bring her fully under its influence. When the operation had been continued about twenty-five minutes, the pulsation in the radial and temporal arteries ceased, which had been continually failing since the beginning of the operation, with pallor gradually coming on. The respiration was good up to this time. When I noticed that the pulsation in the arteries was about to cease, I stopped administering ether, and gave a drachm of brandy-and-water (equal parts) hypodermically: her head was lowered, and she soon revived sufficiently to speak and move her limbs. Then the operation was proceeded with, but without using more ether. In a few minutes she vomited, after which it was seen that she was sinking; and again her head was lowered, and the brandy-and-water used hypodermically (about four drachms), also one drachm of aromatic spirits of ammonia. About eight ounces of Squibb's washed ether were used, but much of it was wasted. About five drachms of brandy-and-water were used hypodermically, and one drachm of spirits of ammonia."

A NEW AND SIMPLE METHOD FOR THE REMOVAL OF LARYNGEAL POLYPI (*The Medical Record*, June 2, 1877).—The *Monatschrift für Ohrenheilkunde* of 1877 contains the description of a new procedure by Voltolini, by which he manages to remove inter-laryngeal growths without either special instruments or a mirror. He simply swabs out the larynx, and in so doing tears off the soft polypi. The swab consists of a flexible wire, to which is attached a sponge whose diameter does not exceed, at the utmost, one millimetre. The sponge, having previously been softened in water, and then pressed out, is introduced "blindly" into the larynx, which closes upon it. No attempt should then be made to advance or press downwards until the larynx opens again. If this takes place, as is very often the case, then the swab must be passed up and down between the vocal cords. In favorable cases, when the sponge is withdrawn the polypi will be torn off. The method is only applicable to comparatively slow growths. It is thought that after the diagnosis has once been made, any practitioner may be able to do the operation successfully. Voltolini gives six cases in which this simple method was pursued.

AIR-BUBBLES IN THE VITREOUS BODY, FOLLOWING PERFORATING WOUNDS (*The Clinic*, June 9, 1877).—Mr. A. Stanford Morton records, in the *Royal London Ophthalmic Hospital Reports*, vol. ix. part i., two cases which are worthy of notice as interpreting a condition which might readily be the source of an erroneous diagnosis. In each case there had been a wound of the sclerotic by a chip of metal; and upon examining the fundus with the ophthalmoscope, to determine the presence or absence of the piece of metal, a body presenting a peculiar metallic lustre could be seen. This was at first taken to be the foreign body sought, but a closer examination showed that it was, in reality, a bubble of air carried into the vitreous body by the chip of metal. It was about as large as the optic disk flattened, bright at the centre, and bounded by a uniform dark zone.

In twenty-four hours after the injury these bubbles of air had almost gone, and in thirty-six had entirely disappeared.

THE ARTERY CONSTRICTOR (*The Lancet*, June 9, 1877).—At the close of a recent meeting of the Clinical Society of London, Mr. Henry Morris exhibited some specimens of the external iliac and common carotid arteries, removed from dead subjects, which had been subjected to constriction by Dr. Fleet Spiers's "artery constrictor." He also demonstrated the mode of application of the instrument. The constrictor acted much as the ligature and torsion by dividing the internal and middle coats: it did not, however, destroy the external coat, while the inner coats could be peeled away and involuted to a degree varying with the extent to which the screw of the instrument was worked. The specimens showed the success of the constriction. The instrument had to be applied for a few seconds only, and after

its removal it was found that the involution of the coats was of itself sufficient to resist the flow of fluid injected into the artery. The results of experiment on the dead subject, and the trials which had been made of the constrictor on the living by American surgeons, were very satisfactory: so that it deserved, Mr. Morris thought, a fair trial from all surgeons interested in measures having for their object the checking of hemorrhage or the occlusion of arteries in their continuity without leaving any foreign body whatever in the wound. In aneurisms of the arch of the aorta, of the innominate, carotid, subclavian, and axillary arteries, torsion was impossible, Esmarch's bandage out of the question; compression was neither convenient nor safe, even when it could be borne; carbolized catgut ligatures had been proved to be unreliable, and the galvano-puncture was fraught with dangers of its own. In such cases as the above, constriction by the "artery constrictor" seemed to possess advantages over all other methods, and promised a fair amount of success.

Citric Acid in Diphtheria (*The Clinic*, June 9, 1877).—Dr. Caspari writes to the *Deutsche Med. Wochenschrift*, that he has treated successfully over forty cases of diphtheria by using locally (with the spray and brush) slightly diluted citric acid. Several of these cases had resisted treatment by salicylic and carbolic acid. Appropriate constitutional treatment was, of course, combined with the local.

A Successful Case of Gastrotomy for Stricture of the Œsophagus (*The Clinic*, June 9, 1877).—A case of this description is reported by M. Verneuil. The stricture was caused by swallowing a potash lye. Of over twenty cases of gastric fistula made for this purpose, this he claims is the first successful one.

MISCELLANY.

Concentrated Lime-Juice as an Anti-scorbutic.—According to the testimony of Dr. Denis Macdonald, F.R.S., Professor of Naval Hygiene at Netley, and Dr. De Chaumont, Professor of Military Hygiene, before the Arctic Committee, it appears that lime-juice when unfortified will freeze at about 25° F., and when fortified with ten per cent. of spirit forty over proof, will congeal at about 15°. If a greater proportion of spirit is added, freezing is stopped altogether, and all possibility of breaking the bottles is obviated. Lozenges of concentrated juice were produced at the committee, an ounce of which was equivalent to one ounce of lime-juice with the ounce ration of sugar; and others have been made with lime-juice so concentrated that four lozenges are equal to one ounce of juice. It is in evidence that this juice may be reduced to a tenth of its bulk, or perhaps less, without altering its chemical composition in the slightest degree. The late Dr. Parkes found that even on evaporating lime-juice to dryness there was no loss of acidity. There is no reason whatever to believe that the antiscorbutic properties of the juice would be impaired by this process of concentration. If the lozenge form were adopted (and it is stated that they are not unpleasantly acidulated), a man in a sledging or any other expedition could easily carry in his pocket his ration for thirty or forty days.

M. Verneuil on Spermatorrhœa.—At a meeting of the Société de Chirurgie, of Paris, in April last, M. Verneuil mentioned that M. Monière, a hospital student, had a brother who for the last fourteen years—ever since the age of 19—had suffered from spermatorrhœa, with erections. The patient was almost rendered sleepless, for as soon as sleep commenced the young man had erections and seminal emissions. Several persons passed the night at his bedside, with the injunction to awaken him so soon as erection ensued; and his brother invented a very ingenious apparatus to which he had given the name of *electro-medical alarm*. A small, very light ring was attached in front of the pubis by cords; two cords make this ring communicate with the poles of a pile; the penis is introduced into the ring so that contact takes place, but no kind of pressure; on the contrary, as soon as the penis becomes erect the smallest pressure makes the battery to work. In order not to disturb neighbors, the bell is made very feeble, but then it is necessary that an india-rubber tube should make the bell communicate with the ear. Since the patient had used this instrument the spermatorrhœa had almost altogether disappeared, gradually, and his general condition had greatly improved. M. Panas said that cases of cure of this kind were not absolutely new. M. Ricord had told him several times of examples of cure obtained in this way. M. Desprès observed that Lallemand and Tissot had shown that dorsal decubitus caused nocturnal erections and emissions, and mentioned that in certain schools where the boys had nocturnal emissions, the night nurses prevented them lying on their back, and turned them on their side.—*The Doctor*.

The Treatment of Tapeworm.—Prof. Mosler has been advocating a system of treating tapeworm which, according to a Swiss medical journal, has been attended with remarkable success. Its chief characteristic is the injection of large quantities of warm water into the colon, after the administration of the anthelmintic. The diet is first regulated, food being given which is supposed to be distasteful to the tapeworm,—bilberry tea, herrings, sour cucumber, salted meats. The intestine having been, as far as possible, emptied by laxatives, a dose of the extract of

pomegranate-bark is administered, prepared from the fresh bark, and then a large quantity of warm water is injected into the rectum. The theory is that the worm, previously brought down into the colon, is prevented by the water from attaching itself to the wall, and is brought away by the liquid on its escape. It is asserted that in every case in which this treatment was adopted the head of the worm was removed.—*London Lancet.*

OSCAR, the King of Sweden and Norway, has, through the minister at Washington, Mr. Lewenhaupt, conferred the decoration of Knight Commander of the Norwegian Order of Olaf upon Prof. Wm. Pepper, in acknowledgment for services rendered to the Norwegian Commission at the Centennial Exhibition.

CHEAP COLLODION.—The London *Chemist and Druggist* says, "A cheap way to obtain collodion is to steep white printing or machine paper in concentrated sulphuric acid from five to eight minutes; wash and dry it. It is now stiff as parchment, and should be cut small and digested in ether."

THE NEBRASKA STATE MEDICAL SOCIETY has practically decided that popular advertising is not contrary to its code of ethics. It has refused to censure or discountenance a surgical firm which has largely advertised itself through the secular papers and by means of circulars.

NOTES AND QUERIES.

FORT CRAIG, NEW MEXICO, July 3, 1877.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—From page 420 of your issue of June 9, 1877, I extract the following paragraph:

"TO PREVENT THE FORMATION OF MILK, Dr. Peaslee, of New York, recommends that the breasts, after delivery, be tightly strapped by means of adhesive plaster. In five cases he reports perfect results."

I am sure that Dr. Peaslee would be the last man to claim that he was the originator of any mode of treatment of which he was not the author. The history of this idea of strapping the breasts with adhesive plaster to prevent the formation of milk is the following.

In a report of the meeting of the New York Academy of Medicine on November 19, 1874, given in the *New York Medical Record* for December 15, 1874, it will be seen that this identical subject came up for discussion, and that Dr. Peaslee and other members gave their views on that matter, and the different methods of treatment adopted by them.

Having had some experience of such cases, both in private and army practice, in which I had used strapping with the most successful result, I wrote to Dr. Peaslee on the subject, who replied to my letter, thanking me for my communication, and promising to bring the matter both before the Academy of Medicine, and his own class of obstetrical students at the Bellevue Hospital Medical College. Not seeing in the medical journals any report of the discussion on my paper, I again wrote to Dr. Peaslee on that subject, who replied to me in a letter of which the following is a copy:

"29 MADISON AVENUE, NEW YORK, June 26, 1875.

"DEAR DR. WILSON,—I intended long ere this to have replied to your letter of the 11th ult. My absence on a journey to the South prevented me from bringing the subject of your first letter before the Societies, as I had intended, though I spoke of it to several obstetricians here, just as I was about leaving. Since my return I have been so pressed as not to be able to be present at the meetings as I had expected. But at the meeting for this month of the Obstetrical Section of the Academy of Medicine, your letter was formally presented, and the subject discussed. No one present but myself had ever used plaster as ordered by yourself. I have done so in five cases since I received your first letter, and in every instance with perfect success. I had two cases requiring some method to prevent the secretion of milk in a single day, the 4th of this month. All were pleased with the idea of strapping as you propose, and voted unanimously to thank you for your interesting letter, and to insert it in the records of the Society. I shall bring up the subject again next fall in other Societies, as they have all now adjourned through the summer. With many thanks for your valuable communication, I am

"Yours very truly,
"E. R. PEASLEE.

"Dr. W. I. WILSON, Assistant-Surgeon, U.S.A."

The vote of thanks of the Obstetrical Section of the Academy of Medicine was duly and formally conveyed to me by the secretary, Dr. S. Caro, New York, in his letter dated September 15, 1875.

It will be seen from the above communication that I was the first to propose to this Society the use of strapping the breast by adhesive plaster to prevent the secretion of milk in cases of still-birth, etc., etc. I am glad to find that Dr. Peaslee's further experience of this mode of treatment continues so satisfactory that he is able to favorably recommend it to the profession.

WILLIAM I. WILSON,
Assistant-Surgeon, U.S.A.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JULY 1, 1877, TO JULY 14, 1877, INCLUSIVE.

SWIFT, E., LIEUTENANT-COLONEL AND ASSISTANT MEDICAL PURVEYOR.—Relieved from duty as Medical Director, Department of the Gulf, to proceed to New York City and relieve Colonel C. Sutherland, Surgeon, of the charge of the Medical Purveying Depot in that city. S. O. 147, c. s., A. G. O.

STERNBERG, G. M., MAJOR AND SURGEON.—Telegraphic instructions of 19th inst. to proceed with ample medical supplies, with Companies B and H, 21st Infantry, from Fort Walla Walla to Lewiston, Idaho Territory, confirmed. S. O. 86, Department of the Columbia, June 29, 1877.

BROOKE, J., CAPTAIN AND ASSISTANT-SURGEON.—To accompany 2d Infantry to Department of the Columbia, and return to his present station, unless otherwise ordered. S. O. 133, Department of the South, July 7, 1877.

KINSMAN, J. H, CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Jackson, Mississippi. S. O. 114, Department of the Gulf, July 4, 1877, and granted leave of absence for one month, with permission to apply for one month's extension. S. O. 116, c. s., Department of the Gulf.

DE HANNE, J. V., CAPTAIN AND ASSISTANT-SURGEON.—To accompany troops to Fort Clark, Texas, and report to the Commanding Officer, District of the Nueces, for assignment. S. O. 125, Department of Texas, July 7, 1877.

ELBREY, F. W., CAPTAIN AND ASSISTANT-SURGEON.—To accompany 2d Infantry to Idaho Territory, and return to his present station, unless otherwise ordered. S. O. 133, c. s., Department of the South.

ADAIR, G. W., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To report to the Commanding Officer, District of the Rio Grande, Fort Brown, Texas, for duty. S. O. 125, c. s., Department of Texas.

SEMIG, B. G., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to temporary duty at Camp McDermit, Nevada. S. O. 76, Division of the Pacific and Department of California, June 29, 1877.

REED, W., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Camp Apache, A. T. S. O. 66, Department of Arizona, June 26, 1877.

HALL, W. R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Telegraphic instructions of 20th inst. to accompany troops on board steamer "California" to Lewiston, Idaho Territory, for field service, confirmed. S. O. 86, c. s., Department of the Columbia.

TORNEY, G. H., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Fort Gibson, Indian Territory. S. O. 125, Department of the Missouri, July 5, 1877.

GARDINER, J. B. W., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Camp Lowell, Arizona Territory. S. O. 66, c. s., Department of Arizona.

PHILADELPHIA, AUGUST 4, 1877.

ORIGINAL LECTURES.

ASPIRATION IN COMPLICATED CASES OF PLEURAL EFFUSION.

BY WM. PEPPER, M.D.,

Professor of Clinical Medicine in the University of Pennsylvania.

Reported by S. M. Miller, M.D.

III.—INTRA-THORACIC CANCER WITH PLEURAL EFFUSION, ILLUSTRATED BY THREE CASES.

PLEURAL effusion may occur in the course of intra-thoracic cancer from the pressure of the tumor on one of the azygos veins, but more frequently it results from the pleura itself becoming the seat of cancerous disease. Cancer of the pleura, however, is rarely a primary disease, and in the three following cases it will be found to have arisen as an extension from adjacent tissues. It is also met with in cases of general cancerous cachexia.

Case III.—H. M., aged 42, colored, was admitted to the Philadelphia Hospital in the winter of 1867, with a scirrhous tumor of the right mammary gland, which was removed by Dr. Levis. The wound healed, and she was discharged. Later there was ulceration of the cicatrix, but this soon healed. Upon August 20 she was re-admitted to the ward, complaining of dyspnœa, without fever, cough, or pain in the side. Her respirations were thirty-two to thirty-five, pulse ninety; marked dyspnœa; respiration abdominal; expiration prolonged and wheezing; tongue moist and clean; no vomiting or diarrhœa; œdema of feet and ankles; left lateral decubitus; axillary glands enlarged and indurated.

Physical examination revealed percussion resonance fair at apex on right side, but impaired below nipple; on left side, absolute dulness from apex to base. The intercostal spaces level, but not bulging on this side. Deficient expansion of left thorax; over right lung expiratory murmur exaggerated. Clear and almost metallic bronchial breathing over whole posterior aspect of left side; sounds feeble and slightly bronchial in front, except over apex. Vocal fremitus diminished; heart-sounds healthy but feeble. Iodide of potassium, carbonate of ammonium, and tincture of belladonna ordered, with beef tea and milk punch. Later, pulse became slightly dicrotic, and heart dislocated to right of sternum. On September 5 paracentesis was performed. The needle was introduced into the sixth interspace, on a line with the anterior border of the axilla. Two quarts of dark, bloody serum were withdrawn. The fluid was highly albuminous, sp. gr. 1013, and deposited a thick, chocolate-colored sediment. The operation greatly improved all the symptoms. On September 7 the fluid again began to accumulate, and the symptoms returned with such severity that on the 11th paracentesis was again performed, and two quarts of reddish serum were drawn off, of much the same character as the fluid of the first drawing. Again the patient began to improve rapidly, and was almost convalescent, when, on November 9, her symptoms gradually aggravated, and on December 29 death occurred quietly.

Autopsy.—The *right* lung was quite free from pleuritic adhesions; there were, however, both on the costal and pulmonary layer, numerous cancerous nodules projecting into the pleural cavity. The pleura around these deposits appeared healthy. Upon making a section through any of these growths, they were found to vary in thickness from one line to one inch. Immediately beneath the right mammary region there were some prominent cancerous nodules. The pleural sac contained Ov of clear yellow serum.

The *left* lung was very much compressed and contracted. The pleura was much thickened, and the costal layer showed the same cancerous growths as on the right side. The pulmonary and pericardial pleura was also dense, thickened, and very tough. The tissue of the lung was condensed, but smooth on section, and apparently healthy. The pleural sac contained sero-sanguinolent fluid in much smaller quantity than the right. The entire extent of the diaphragmatic layer of pleura on both sides presented extensive cancerous growths.

The pericardial layer was also the seat of cancer.

The *heart* was somewhat enlarged, but the valves healthy. The *aorta* was of normal size.

The cancerous nodules were some scirrhous and others firm encephaloid. There was considerable fatty degeneration of the encephaloid growths, and not so much in the scirrhous.

Case IV.—Seen with Dr. Yarrow. The patient was 56, and free from the cancerous diathesis. He had suffered from bronchial cough and malarial trouble. On or about June 21, 1876, Dr. Yarrow was called to see him, and found marked effusion on right side, which caused violent orthopnœa. There was localized chest-pain, absence of respiratory sounds, and dulness on right side. These signs gradually diminished upon treatment, and he began to go about again, when there occurred a second effusion on September 15. There then appeared distinct prominences and severe pain. The signs of this last effusion never entirely disappeared, and the pain continued.

I saw him early in October. There was then great emaciation and profuse sweating. The pain was constant, and interfered much with sleep. There was dry cough; pulse frequent and feeble; right side of chest enlarged; movement impaired, but not lost; apex in front dull; resonance down to fifth rib; not so low on side. Posteriorly, flatness from spine to scapula down; feeble, distant breathing over dull area behind. Change of position produced no effect at all. A needle was introduced through eighth interspace posteriorly, on line of scapula, and one pint of clear serum drawn off. Towards the close the fluid was almost pure blood. This afforded much relief, but did not affect the physical signs. The heart was outside of nipple on left. No distention of veins. There was a second operation performed at same point, but with no results.

The prominences increased, and he progressively lost flesh and strength, and suffered great pain. On December 11, 1876, death occurred, preceded by slight œdema.

At the *post-mortem examination* the left lung was healthy, but congested, and the heart pushed towards the left side. A large mass of morbid growth lay in the anterior mediastinum, attached to the posterior surface of the sternum and to the outside of the pericardium. The sac contained about a gill of bloody serum. On the right side there were extensive cancerous masses. The mass on the posterior surface involved both layers of pleuræ, and also the superficial lung-tissue. The whole thickness of the diaphragm was also involved. At one spot the cancerous disease extended to the capsule and tissue of the liver.

There was no pleural effusion. The lung presented comparatively few cancerous nodules. At points it was intensely congested. At the point of first puncture there were pleural adhesions. The liver was enlarged, congested, indurated, and granular. The remaining abdominal organs were healthy. The body presented a moderate degree of emaciation.

Case V.—Mrs. McC., æt. 60, seen with Dr. J. G. Wilson. Patient had suffered some eight years ago with symptoms of cardiac disease and abdominal dropsy. This had been relieved, though after continued shortness of breath. For some months she had suffered from increasing dyspnœa, and more recently from symptoms of pleural effusion on the left side. She had been very fleshy, and, although she had lost some weight, was still a stout woman. There was intense orthopnœa, hurried breathing on the right side, and frequent, feeble, irregular pulse. Physical examination showed nothing abnormal on the right side, while on the left there were signs of effusion, reaching the second rib. The heart was pushed towards the right, and it was very difficult to detect its apex-beat. Indistinct systolic murmur could be heard. There was moderate ascites and marked œdema of the legs. The urine contained no albumen.

Paracentesis was performed, the point of selection being the seventh interspace in a line with the anterior border of the axilla. Eighty fluidounces were withdrawn, of which the latter part was slightly tinged with blood. Marked relief followed for a time, but there persisted considerable increase of dulness around the cardiac region, extending particularly towards the mediastinum. The relief was but brief, symptoms of effusion on the right side occurring, and the patient died a month after the operation.

The *post-mortem examination* showed extensive intrathoracic cancerous disease. There was a large mass occupying the anterior mediastinum and involving the anterior layer of the pericardium, which was nearly an inch in thickness. The pericardial sac contained f℥iv–v of blood-stained serum. With some roughness of the membrane, there was no valvular disease. There were scattered nodules of cancerous growth over the pleura on both sides. On the left side, the pleural sac was obliterated by adhesions. On the right side, the sac contained Oiii of blood-stained effusion, and there were numerous small nodules scattered through the substance of the lung.

Remarks.—In some cases the diagnosis of cancer of the pleura is very easy. Thus, as in Case III., if following an external cancer of the mamma, or elsewhere, dyspnœa and signs of increasing pleural effusion supervene without there having been any exciting cause of pleurisy, we may suspect the development of cancer of the pleura. So too in Case IV , the peculiar recurrence of effusion without apparent cause, the severe pain extending down the nerves of the right arm, the irregular distribution of percussion dulness, and especially the later development of the prominences described, enabled the diagnosis to be readily made.

On the other hand, in some cases the diagnosis is very difficult. This is particularly true when the pleura becomes affected in connection with primary cancer of the lungs, or as an extension from small and comparatively deep-seated mediastinal growths. Thus, in Case V., both the history and the marked evidences of cardiac disturbance made it probable that pleural effusion was due to cardiac disease.

The staining of the serum which was withdrawn, and the extensive dulness over the præcordia and the lower part of the mediastinum, aroused suspicions as to the existence of intra-thoracic growth. I

would dwell with particular emphasis on the value of the serum when mixed with blood as a sign of cancer of pleura. It is true that this may sometimes occur in cases of an inflammatory nature, and it not rarely happens that towards the close of the operation, particularly if severe cough has been excited, there may be a little blood mixed with the serum. But when the effusion throughout presents a blood-stained tint, showing that the blood has been previously effused, it should always call attention to the possibility of there being cancer of the pleura. It will therefore be seen finally that even when the pleural effusion does not supervene on external cancerous growth, a careful study will frequently reveal points leading to a correct diagnosis.

The existence of cancer of the pleura is no counter-indication to paracentesis if the effusion be large and cause severe dyspnœa. Even if the effusion be comparatively small and sacculated, great relief may be afforded, as seen in Case IV.; while, when the entire collection is removed, as in Cases III. and V., great good may be done, and it may even happen, as in Case V., that adhesions will form and prevent any return of effusion on that side. It is needless to say that such relief is at best palliative merely, and that the fatal progress of the disease will cause death either by extension to the opposite side or by the development of visceral growths. Both before and after the operation of paracentesis, which is so often called for in cancer of the pleura, the use of anodynes, either internally or hypodermically, is necessary for the relief of pain or paroxysmal cough which frequently attends cancer of the lung or mediastinum.

ORIGINAL COMMUNICATIONS.

CONTRIBUTION TO THE PATHOLOGY OF CHILDBED.

I.—A CASE OF IMAGINARY BLINDNESS IN CHILDBED.

BY M. LANDESBERG, M.D.

SINCE the attention of physicians has been drawn to the point, the cases of total blindness (amaurosis) or of considerable diminution of vision (amblyopia) suddenly appearing, either during gestation or in childbed, are no longer counted among the extremely rare and exceptional appearances which are observed during this period of involution of woman. This amaurosis or amblyopia may be either a permanent or a mere transitory disturbance. In the latter case vision may either be completely restored to its former power, or the recovery is but imperfect and a part of vision is destroyed. The causes of this permanent or merely temporary blindness, or considerable impairment of vision, are various. They may have their origin—1, in certain demonstrable changes either of the brain or of the eye itself; 2, in certain changes of the blood, which directly affect the genital organs, and secondarily by reflex action cause an alteration of the nervous action; 3, in a perturbation of the whole nervous system, in consequence of which either the light-perceiving or the light-transmitting elements of the eye are temporarily or permanently paralyzed, with total loss of function.

The first category embraces the amaurosis and amblyopia caused by hyperæmia of the brain, by uræmic blood-poisoning, and by embolic processes.

Among the last two we must place those cases of amaurosis or amblyopia which appear without any demonstrable ophthalmoscopic change.

We observe here the consequences only of a morbid disturbance, without obtaining an insight into the real nature of the pathological process. Our situation here is the same as in many other cases of amaurosis or amblyopia which are produced by other morbid conditions of the human body. Here, too, the connection between cause and effect now and then completely escapes our observation. I have in my mind the so-called pseudo-amaurosis, without any characteristic ophthalmoscopic evidences. In these cases, too, certain molecular changes in the nerves are doubtless the primary cause of the blindness. If the origin of such blindness is obscure, just as obscure and inexplicable remains as yet their course. For we cannot give any reason why in one case after a longer or shorter duration the amaurosis completely disappears, and vision returns, and why in another case total blindness is produced or vision is but partially restored.

So far, we have spoken of amaurosis and amblyopia, which, in fact, make their appearance in women during gestation or in childbed. But I would call attention to another form of amaurosis in childbed,

which until now seems to have escaped observation. In ophthalmological literature, as far as I am acquainted with it, I find no mention of such cases. Likewise, the text-books on gynæcology which I have consulted are silent on this point. It is, however, an open question whether any further research into gynæcological literature would meet with a better success. I base my right to establish a special form of puerperal amaurosis upon the observation of one case only. But this one case proves to me that it cannot be an exceptional one which chance should have thrown under my exclusive observation.

If similar cases have really not been observed, the explanation is that ophthalmologists are rarely called upon to treat diseases consequent upon childbed; and that obstetricians may sooner be led to mistake this form of amaurosis which I speak of with other forms of that disease.

The form of amaurosis which I treat of is not a real one, but imaginary, resulting from a peculiar state of the imagination of the patient. The eye which is said to be blind presents no signs of any morbid change, and is of normal vision. And yet the woman maintains that she is blind with that eye, and acts like a blind person whenever the other eye is closed. The possibility of intentional deception or of simulated amaurosis is entirely excluded. The patient is firmly convinced of the reality of her blindness, the physician may readily be misled, and to prove that we are only dealing with a case of imagination is difficult, and depends greatly upon contingencies. Should the proof fail, and the assertion of the patient be received as valid, the nature of the disease will be misunderstood all the more because the absence of all objective evidence and the temporary nature of the blindness tempt the physician to range such a case in that class of childbed blindness which is known to present no ophthalmological changes.

If we now attempt to give a proper conception, if not a complete explanation, of this form of imaginary blindness, we must consider the peculiar condition of woman which plays so important a part during the changes of her sexual life, both in gestation and in childbed: we mean hysteria.

Certain disturbances of the senses or of the mind occurring either during pregnancy or in childbed must be considered as a form of this singular neurosis, which we are wont to classify under the one generic name of hysteria.

In many cases they have their origin in some pathological state of the genital organs and their nerves, and must be considered as reflex phenomena. They exist as long as the original cause continues to act. The forms under which the psychical disturbances appear are manifold. That such a temporary mental disturbance may give rise to the idea of being blind of one eye is a supposition which must be admitted even by *a priori* reasoning.

The case to which I have repeatedly referred is as follows:

M. L., a day-laborer's wife, 33 years old, was brought to me, November 22, 1872, by her husband, her complaint being that she had lost the sight of her left eye in childbed. Patient, who had borne three times before, had, on November 8, been normally delivered of a healthy boy. She emphatically denies having sustained great loss of blood, or having had convulsions or fever. Since the fifth or sixth day after her delivery she complained that she could not see with her left eye. No attack of pain had preceded it. Patient asserts that she suddenly made the discovery of her blindness whilst she pressed her child to the right side of her face, thus covering her right eye. She could not state on which day she had lost her sight. The childbed took a regular course. On the eighth day patient left her bed and returned to her domestic occupations. She nurses her child, the supply of milk being plentiful.

Patient is of medium height, spare build, reserved and shy in manner, eyes always downcast, speaks only when questioned, and then extremely little. She takes her blindness as something inevitable, without complaint, and with a certain apathy.

Both eyes, in their external appearance, exactly alike. Mobility, curve of the cornea, reaction of the pupil, intra-ocular pressure, are normal on both sides. Either cornea has normal brilliancy, and the color of iris is deep blue. Right eye has vision $= \frac{15}{15}$, and Jaeger I. is read from $5\frac{1}{2}''$ to $10''$. Field of vision free. Left eye, according to statement of patient, has only perception of light.

An examination gives the following results. If the right eye is carefully covered, and the patient is requested to fix her left eye upon the light held at a distance of $8'''$, and to follow the different movements of the same, it becomes very unsteady and follows but very irregularly the movements of the light. Mostly the eye is not at all fixed, but rolls about with vacant stare. Sometimes the eye fixes the object centrally, but not in the periphery.

The statements of the patient in reference to perception of light are very uncertain and

unreliable. Repeated examinations gave no positive results. At one time perception of light would appear completely intact, and at other times the field of vision would seem to be defective. The woman bears these manipulations with much patience.

If both eyes are left free, the fixation of both is normal.

If now the right eye is excluded from the fixation, the left eye will either continue in its position, or it begins to make slight rolling motions, or it turns completely to the right or to the left, in which case the right eye executes the same motions beneath the covering hand. If the right eye was carefully covered, the patient placed in the middle of the room, and requested to come to the window, she at first refused to comply because she could not see with the left eye. When repeatedly requested to make a trial, she stretched out both arms before her, spread her feet, and bent her body slightly. In this manner, with diffident and anxious expression, she stumbled a few steps, and then stopped. The ophthalmoscopic examination gave no clue to the cause of this blindness. The background of both eyes presented exactly the same appearance, which did not deviate from the normal condition.

In the beginning of this long-continued examination the suspicion arose in me that I might possibly be dealing with a case of simulation. But I was compelled to give up this suspicion. In all cases of simulation there is a fixed sameness of statements. The simulants have carefully considered their answers beforehand, and move in the same circle of ideas. They are very suspicious, and take good care not to be confused by cross-questioning. Nothing of this kind was seen in our patient; she answered all questions instantly, and submitted without hesitation to all experiments.

Neither did the external circumstances afford any reasonable grounds for simulation, either from a morbid feeling of self-importance or aversion to work. The patient, living in modest circumstances, led a happy domestic life, and attended to her household duties all alone. Preoccupied by the care of her children and housekeeping, she bore the loss of her sight with great patience, and only when prompted by the expressed wish of her husband did she consent to consult a physician. There remained, therefore, but two modes of explanation for this blindness. This was either a case of real amaurosis occurring accidentally or in consequence of the childbed, the proximate cause being unknown, or I had before me a singular case of imaginary amaurosis to be regarded as an expression of that strange neurosis which we call hysteria. Even *a priori* reasoning excluded the probability of real amaurosis, though its possibility could not be denied absolutely. The condition of the patient during gestation and in childbed had been perfectly normal. Losses of blood had neither preceded nor followed. Lactation was likewise normal. Nor could any other cause be assigned for real amaurosis.

On the other hand, my attention was from the very first particularly attracted to the quiet, almost apathetic state of the woman, and her shy, retiring manner. To my question whether his wife had always been of such a disposition, the husband answered that since her last childbed he had noticed a considerable change in her conduct. She had always been of a quiet temperament, but now she was reserved, would speak but little, and avoided all company. She was active as ever, took the same care of her household, but her whole manner had become more passive, more mechanical. When the patient was asked about her condition, she said she felt perfectly well.

My impression that the blindness was probably delusive, confirmed, as it was, by the statement of the husband, caused me to proceed very carefully, and to endeavor, as far as possible, to discover the true cause of the affection. I directed the patient to call again the next day, when I again undertook a thorough examination, which, however, in every point resulted as before. This led me to the following reasoning:

If the blindness of the left eye is only fictitious, this fiction will chiefly take place whenever the right eye is excluded from the act of vision and the left eye is forced to see alone. Then arises a struggle between the sense of vision and the delusion of blindness, in which the delusion gains the upper hand and the real impression is overwhelmed. A similar affection, where we remain unconscious of the perceptions of our senses, is sometimes found in the normal physiological state. Take, for instance, the state of vision with the so-called vacant stare, in which we do not become conscious of the things around us, or the state of deep concentration upon one subject, when our faculty of perception seems to be insensible to any other object. In both cases either the pictures received by the retina do not produce a sensible impression or do not develop into objects of consciousness.

Now, as in our case the imaginary blindness is confined to the left eye, the patient, as long as both eyes are left open, has no cause to fix any particular attention on the left eye. The predisposing moment of the delusion is wanting, because the patient thinks that the right eye alone sees. If now, I continued to reason, the patient could be made to believe that she was using her right eye, when in fact this eye was prevented from seeing, and the perception of the objects, if at all, could be effected solely by the left eye, we would furnish the conditions in which the cause for delusion would be ex-

cluded and thus the impression received by the left eye would be transmitted to consciousness.

For this purpose I examined the patient in the following manner:

I held before both eyes blue-colored glasses, and made the patient read Snell's tables with binocular vision. Vision was then $\frac{15}{15}$. On closing the left eye the result was the same; on closing the right eye she said that she could only perceive the light. These experiments were repeated several times. In one attempt at reading, when the attention of the patient was completely absorbed in deciphering the letters, I suddenly changed the blue-colored glass of the right eye for another kept in readiness, one side of which had been coated with black. Notwithstanding the exclusion of the right eye, the patient continued her reading until she reached $\frac{15}{15}$: thus the proof was furnished that the left eye had the same vision as the right. This experiment was repeated several times, and always with the same result. These evidences were sufficient to convince me that this was a case of imaginary blindness.

But I refrained from communicating the true state of things to either the husband or wife,—to the wife, lest the delusion should be excited by a spirit of contradiction; to the husband, lest some remark might escape him which would produce the very result that was to be avoided. So I comforted the patient with the assurance that such cases of blindness were of frequent occurrence in childbed, that it would disappear without leaving any trace, and that vision would be completely restored. In order to strengthen her belief by giving some medicine, I ordered pills of iron to be taken for two weeks. I enjoined the husband to speak as little as possible with his wife about her condition, and to prevent all expressions of sympathy from friends and neighbors,—in short, to appear to attach no importance whatever to the whole affair.

When, two weeks afterwards, the patient entered my office, the great change in her manner at once showed that she must have recovered from her disturbance. In fact, the delusion had completely disappeared; the woman read fluently with each eye separately.

Whether the hysteria in this case was dependent on a certain pathological condition of the genital organs I am unable to decide, as no examination to that effect had been made.

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TETANUS — CHLORAL — DEATH.—Surgeon-Major F. Odevaim reports (*India Medical Gazette*, June, 1877) a case of traumatic tetanus in a muscular Sepoy, fatal in thirty-five and one-half hours in spite of the free administration of chloral, morphia, and stimulants.

PRELIMINARY NOTE ON A NEW MEDICINAL PLANT AND ITS ALKALOID.

BY H. C. WOOD, M.D.

SOME time since, I received from the Smithsonian Institute a letter containing some small, red beans, which had been sent there by Mr. Edmund Bellinger, Sr., of Texas. The beans were irregularly oval or roundish, about one-third of an inch in length, and had a slightly bitter taste, with an after-feeling of numbness, when chewed. Mr. Bellinger stated that they were occasionally used by the Indians in the neighborhood of San Antonio, South-western Texas, as an intoxicant; that a half bean would produce delirious exhilaration, followed by sleep which lasts two or three days; and that it was asserted that a whole bean would kill a man.

Mr. Bellinger has been kind enough to send me several small packages of the bean. It is the very imperfect results of this study which I now publish, hoping before many months to be able to lay before the profession an exhaustive report upon the drug or poison.

With the beans, there were in the first letter of Mr. Bellinger a few broken flowers. On submitting these to Dr. Rothrock, Professor of Botany in the University of Pennsylvania, he, after very little hesitation, pronounced them to belong to the genus Sophora; and comparison with the specimens of Sophora speciosa of Bentham, in his herbarium, left very little doubt that the beans are yielded by that tree.

I have made a partial chemical study of them, and have obtained in several ways, but in very small amount, an organic principle, which is exceedingly active as a poison, the minutest speck producing in two minutes almost entire paralysis in the frog. One-twentieth of a grain of a very impure specimen produced in a half-grown cat deep sleep lasting many hours.

As this substance is not soluble in water, but is soluble in acidulated water and is precipitated by alkalies, and as it dissolves freely in ether, imparting to it a decidedly alkaline reaction, it must be looked upon as an alkaloid. I would propose for it the name of *Sophoria*.

I obtained it of a grayish-white color, but did not succeed in crystallizing either it or its acetate. Its reactions, as far as I

have examined them, are as follows (the tests were made by placing a speck of the alkaloid upon a porcelain plate and applying the reagent).

With concentrated sulphuric acid, no color.

With chromic acid and concentrated sulphuric acid, a dirty, deep purple, passing rapidly into bright green, then into bluish and finally into yellowish brown.

With tincture of the chloride of iron, a deep, almost blood red, after a time acquiring an orange tint.

With nitric acid, no color.

With chromic and nitric acid, a very faint, evanescent reddish coler.

With nitromuriatic acid, a dirty reddish brown.

From the solution of its acetate, compound tincture of iodine throws down a yellowish precipitate.

I have made physiological experiments with an alcoholic extract of the bean upon the lower animals sufficient to outline its general action.

In *frogs* it produces a rapid loss of reflex activity and power of voluntary movement. The loss of power is not due to any action upon the motor nerve-trunks, as after death these were found to preserve their normal susceptibility. Further, tying the sciatic artery upon one or both sides of the frog did not influence the action of the drug upon either voluntary or reflex movements. This would indicate that the poison is a spinal sedative and has little or no effect upon either motor or sensitive nerves. In all cases the heart continued beating long after the cessation of respiration.

Upon *mammals* the effect varies somewhat in accordance with the dose. An amount of the extract estimated at two grains (?) produced, in a full grown tom-cat, in one minute marked weakness in hind legs, in two minutes inability to stand, with evident effect upon the respiration, in three minutes convulsive movements with loss of consciousness, continuing with ever-increasing embarrassment of the breathing for three minutes, when all attempts at respiration ceased. The heart kept on beating for one and a half minutes longer. The pupils were unaffected at first, afterwards dilated.

In small quantity the extract produces in the cat vomiting, great muscular weakness, profound quietude, and deep sleep. lasting some hours, and ending in recovery. In dogs the symptoms were similar to those noted in cats. Death always took place through the respiration. In a single cardiac experiment the drug had no decided effect upon the blood-pressure until towards death, but appeared to accelerate the cardiac beat.

SELF-SUSPENSION IN THE TREATMENT OF SPINAL AFFECTIONS.

BY BENJAMIN LEE, M.D.

THE number of this journal for April 28, 1877, under its heading "Gleanings from Exchanges," in a *résumé* of Prof. Sayre's remarks before the New York Academy of Medicine, on "The Treatment of Rotary Lateral Curvature of the Spine," credited to the *Medical Record* of that city, contains the following statement: "In such cases Dr. Sayre uses the method of self-suspension originally introduced by Dr. Mitchell of this city, in conjunction with the application of a plaster-of-Paris jacket."

The reporter has committed two unintentional errors here, which I desire to correct. First, as appearing in and extracted from a New York journal, the phrase "Dr. Mitchell of this city" would naturally lead to the supposition that the Dr. Mitchell referred to was a resident of New York. In point of fact Dr. Sayre had in his mind Prof. J. K. Mitchell, of the Jefferson School, a man to whom, whenever I have had occasion to write or speak in this connection, I have felt it both a pleasure and a duty to award full credit for the ingenuity and sagacity displayed in his treatment of spinal diseases, and whose memory I revere as that of an original worker and independent leader of medical thought. But—and this constitutes the second error—Prof. Mitchell did not originate, nor did he ever make use of, "*self-suspension.*"

I have before me his very interesting article in the first number of the *North American Medical and Surgical Review*, in which he describes a method, new in his time, but for which he does not claim entire originality, of removing the weight of the head and upper part of the trunk from the diseased vertebræ by means of direct traction upon the chin and occiput. This article is accompanied by engravings illustrating the precise form and manner of adjustment and employment of his appliances. In none of these does

the patient take any part himself in producing the traction or suspension. His participation is purely passive. Nor does the text convey any different idea. The severity of the direct force is meliorated by the intervention of a spiral spring at the end of the suspending rope, but modified in no other way. *Self-suspension*, or *modified suspension*, as I have termed it, as a means of active treatment for spinal deformities, was, so far as I know, introduced in this country by myself. My first experiments in direct suspension were in the year 1866.

In 1867 I published a small volume on Angular Curvature of the Spine, in which I described this mode of treatment in detail, claiming it as an accessory of great importance in the management of that disease.

Anxiety to devise some means whereby the thoracic deformity in Pott's disease might be diminished led me in the course of the following year to devise the simple but important modification which places the control of the force entirely in the patient's own hands, converting what was previously irksome confinement into a pastime, aiding in the development of the thoracic and spinal muscles, and giving the patient the benefit of exercise, while at the same time the spine is thoroughly protected. The form of suspension then contrived is essentially that described by Prof. Sayre at the meeting referred to. Under the familiar name of the "spinal swing" it has been one of the fixed pieces of apparatus in my Gymnasium for the Treatment of Spinal and Nervous Affections for the past nine years, and in a portable form has been supplied to a large number of my patients for use at home. In the summer of 1870 I had the honor of giving a clinical demonstration of the feasibility and value of this mode of treatment before the Medical Society of the State of Pennsylvania, in session in this city. The lecture which I delivered at that time appeared in vol. i. No. 4 of this journal for November 15, 1870, and was in 1872 published in a small monograph, entitled "The Correct Principles of Treatment for Angular Curvature of the Spine." At its close occurs the following statement, which I now italicize: "This mode of treatment is *equally applicable to lateral curvature*. In the incipiency of that affection, indeed, it may, *unaided, be adequate to work a cure*. By causing the patient habitually to take hold of the higher handle with the hand corresponding to the depressed shoulder, that shoulder is thus, for the time being, elevated, and its muscles thrown into more powerful action than those of the opposite side, while the curve of the spinal column, if not too rigid, is entirely reversed, and under any circumstances is diminished." In my gymnasium it has been used almost exclusively for true lateral or "rotary lateral" curvature.

During the meeting of the American Medical Association in Philadelphia the past summer, I demonstrated its use clinically before the surgical section, having caused one of my frames to be erected in the hall in which its meetings were held, in order to give Dr. Sayre an opportunity to apply his plaster-of-Paris jacket to a patient in the presence of the members. As may be seen by a reference to the Transactions, I then insisted on the importance of its daily employment, as in itself a means of treatment, and not simply as a temporary expedient for the better adjustment of other appliances.

1503 Spruce Street, Philadelphia.

NOTE ON THE ADVANTAGES OF *POSITION* IN DIFFICULT EXPECTORATION.

BY WM. S. KING,
Surgeon, U.S.A.

WHOEVER has been troubled with a cough attended with expectoration has probably been annoyed at times by the secretions floating up and down with the current of the inhaled and expired air, often clogging up the air-passages and occasioning a disagreeable sense of suffocation, and may remember that when quickly stooping down for any purpose, the offending matter has suddenly popped out upon the floor, thus giving immediate relief. By change of posture the law of gravitation has effected what might have otherwise required hours to accomplish.

As we are so apt to forget our experiences, my only object in this article is to record the *fact*, and call attention to the benefit that may be obtained by position only in many cases, especially in difficult expectoration.

This may appear to be a trifling matter; yet when we consider how much a *proper position*, either in bed or *out* of it, may add

to the comfort of the sick, its study may not be so unimportant as to be entirely overlooked.

NOTES OF HOSPITAL PRACTICE.

BELLEVUE HOSPITAL, NEW YORK.

CLINIC OF PROF. AUSTIN FLINT, SR., MAY 11, 1877.

Reported by P. B. PORTER, M.D.

CHRONIC BRIGHT'S DISEASE, WITH SACCHARINE URINE.

THE first patient whom I introduce to your notice to-day, gentlemen, is an aged woman who is suffering from chronic Bright's disease, her kidneys being probably of the granular contracted variety. The special feature of the case, however, on account of which I bring it before you, is that for the last week or more the urine has been found to contain a considerable amount of sugar. Now the question arises, Is this a case of true saccharine diabetes supervening upon chronic Bright's disease, or, if not, what relation has the Bright's disease to the phenomenon of sugar in the urine, which is now observed? Against the supposition that it is true diabetes is the fact that the amount of urine passed is less than normal (though of a high specific gravity); but this may be accounted for by the loss of secreting power on the part of the kidneys on account of the extensive nephritis present. I must confess, then, that at present I am not able to see precisely what connection there is between the Bright's disease and the saccharine urine: we only know that just now they both exist in the case before us. Sugar in the urine, as you are probably aware, is sometimes merely a temporary phenomenon; and when this is the case it does not seem to have any particular significance. The causation of the presence of sugar is not definitely understood; but I may say that in a certain proportion of cases that have come under my notice it seemed to be due to the fact that the persons in whom it occurred had been eating largely of sugar. This temporary presence of sugar in the urine, however, sometimes has one very bad result, and that is its moral effect upon the patient. There is in the community at the present day, and especially among a certain class of individuals, a well-defined horror of diabetes, which there ought to be some technical term to express, analogous to hydrophobia or photophobia. This is illustrated by the following case. Some little time since, I was consulted by a gentleman who I afterwards found was strongly inclined towards hypochondriasis, and, unfortunately, had more money than he could easily spend. He told me that he was afraid that he had diabetes; and on questioning him I found that he had read up all that there was to be found on the subject. Upon examining a specimen of his urine I discovered that, sure enough, there was some sugar in it; and I had the indiscretion to communicate this fact to him. From that time his peace of mind was entirely gone, and he not only entered upon a prolonged course of anti-diabetic diet, but employed a professional chemist to make daily analyses of his urine. Curiously enough, it was never again found to contain the slightest trace of sugar, and after a long period he became finally convinced that he was not the victim of diabetes after all. Quite a number of similar cases have come under my notice, and one of them occurred in a physician. Observing that he was passing rather larger quantities of urine than usual, he tested a specimen of it for sugar, and found, to his consternation, that it contained quite an appreciable amount. Soon afterwards he consulted me in an exceedingly despondent state of mind. I made a careful examination of his urine, and, not finding any sugar in it whatever, told him that it had probably been only temporarily present, and advised him not to think anything more about the matter. But it was useless to argue with him, and he went away under the firm conviction that he would ere long die of diabetes.

> "Convince a man against his will,
> He's of the same opinion still."

A few months afterwards I met him on the street, and I never saw a countenance more radiant with happiness than his. "Why, what has become of your diabetes?" said I. "Oh," he replied, "you were right. The sugar in my urine was only a temporary affair, after all." Such cases as these ought to warn us particularly not to be content with a single examination of the urine in any instance, but to repeat these from time to time until the condition is definitely ascertained. The house physician, Dr. Taylor, will now examine before you the urine of our patient, by means of Fehling's test, and we shall then see whether there is any sugar present to-day. (On

adding a few drops of urine to the solution boiling in the test-tube, a well-marked precipitate of the red suboxide of copper was immediately noticed, showing that there was a considerable percentage of sugar present.) Now, as to the treatment here. Considering that the patient is over eighty years of age, and is also affected with chronic Bright's disease, I should deem it inexpedient to use any very active measures in the case. We will, therefore, attempt only the expectant plan. I am inclined to think that the saccharine urine is simply a temporary complication; but it may possibly be due to the existence of true diabetes mellitus. At all events, we will wait to see what the future course of the case may be, in the mean while endeavoring to palliate any unpleasant symptoms that may arise.

CEREBRAL EMBOLISM.

At my last clinic, you will remember, we had a case of paralysis before us, which, after a careful differential diagnosis, we determined to be probably due to embolism. To-day I have a somewhat similar case to show you, and before the patient is brought in I will run rapidly over the history as written up by the house physician. The man's name is Martin B——, he is about forty years of age, and was admitted to the hospital on May 2. At that time he was found to be greatly emaciated, in a semi-comatose condition, and aphasic. His previous history was entirely unknown. You may ask, as I did, how could it be known that he had aphasia, if he was partially comatose? Well, it was found to be possible to rouse the patient to a certain amount of intelligence, when he gave evidence that he undoubtedly recognized different objects, but was wholly unable to call them by name, as far as could be made out. The existence of aphasia was, then, altogether probable, but perhaps would not be regarded as proven by many. The examination of the heart and lungs gave negative results. There was *no paralysis*, and sensation and reflex action, as well as the pulse and respiration, were normal, while the pupils were natural in appearance. Such being the symptoms of the case, what would you suppose to be their interpretation? The conclusion formed at the time of the patient's admission was that he was suffering either from thrombosis or embolism. If the attack had been sudden in its onset, it would be inferred that it was due to the latter, and, if more gradual, to the former; but, as I remarked, absolutely nothing was known of the man's previous history.

May 3 (the day after admission).—There is now marked facial paralysis of the right side. This would seem to point to thrombosis; but embolism might be present in addition. The man has no other paralysis.

May 5.—The right arm is completely paralyzed, and there is partial paralysis of the right lower extremity. There is also incontinence of urine. With the above history and symptoms, it is not very probable that we have to deal with a case of extravasation of blood; but in actual practice a differential diagnosis is not always so easily made as it sometimes seems to be done by the clinical teachers in the hospitals, and I believe that the latter are not infrequently responsible for the mistakes which young graduates make, for every case is by no means characterized by such prominent points as to render it an easy matter to decide as to its nature.

May 7.—The temperature has risen to $100\frac{2}{5}°$. This is somewhat suspicious, and might perhaps induce us to consider whether this might not be due to an attack of cerebritis in connection with a clot.

May 8.—The temperature 99° to 98°. The paralysis of the right arm not so complete as before.

May 9 (yesterday).—The temperature normal. The arm is still further improved, but the paresis of the lower limb still continues without much alteration. (The man was now brought in.) Well, here is our patient. He is a German; and in this connection the question arises whether the "aphasia" which has been noticed was not really due to his inability to speak English. It has been ascertained, however, that he has been accustomed to speaking English as well as German. You will observe that the paralysis in this case is on that side of the body on which it usually occurs when associated with aphasia. The aphasia is shown by the fact that he can make sounds sufficiently audible, but is entirely unable to articulate words. When I tickle the sole of the foot on the affected side, you will notice that reflex action is unimpaired, and that even the toes of the other foot are also thus made to twitch.

In this case there is not much to do in the way of treatment: we have only to wait and watch to see what will turn up.

MITRAL DISEASE, WITH DILATATION.

I have asked the house physician, Dr. Taylor, to select for me a couple of cases of cardiac disease with enlargement, and told him that I would prefer one with mitral lesion and the other with aortic, if possible. Here is the first patient, a man of about thirty years of age. I have never seen him before, and all that I know about him is that he has some trouble about the heart. Now, let us see if by putting certain questions we can form any conjecture as to the nature of the latter. And, first, as to its etiology. How long has it been since you had an attack of acute rheumatism? He replies that he has never had rheumatism at all. I supposed that he would probably have given a rheumatic history; for, as you are aware, the great majority of cases of organic disease of the heart arise from rheumatic endocarditis. Our next inquiry is in reference to the first symptom noticed, and the patient informs us that it was shortness of breath, nearly a year ago. It has continued with more or less severity up to the present time, and is sometimes so urgent that he is unable to lie down. In addition to the dyspnœa, we find that he has had cough, with expectoration, and that he has had hæmoptysis five times since last January. (You will please remember that subacute bronchitis frequently occurs in connection with valvular disease of the heart.) Another symptom that has also been present is œdema of the feet. Now, do the features of the case which have just been mentioned point to mitral or to aortic disease? Let us take a vote on it. All those who think the former is indicated will please hold up their right hands. It is "carried by a large majority." Yes, all those symptoms point towards mitral lesions, and show a probable enlargement of the right side of the heart, due to this cause. Having thus attempted to form some idea of the nature of the case beforehand, I apply the stethoscope, and find that there is both a mitral direct and a mitral regurgitant murmur. Mitral obstruction is a lesion which would especially account for the hæmoptysis. On further auscultation, I find the aortic second sound very feeble, and that the pulmonary second sound is about four times as strong as that. This feeble aortic second sound shows that the ventricle contracts on an insufficient quantity of blood. The area of percussion-dulness over the heart is three or four times as great as that in the healthy individual; and it is safe to say that the dilatation now exceeds the hypertrophy, though not to a great extent. You will notice the apex-beat at a considerably lower point than it should be.

This patient has improved considerably since his admission to the hospital. There is now no œdema at all, and no lividity of the lips, as I am told there was formerly. There is no indication at present for digitalis, as the heart is acting very well. The object of treatment here may be briefly stated to be to put and keep the patient in the best general condition that the circumstances of the case will admit of. He should therefore have the best alimentation and in the largest quantities that he can possibly digest. In my opinion, it is far better to put too much into the stomach than too little; though I am aware that such views would not meet with universal acceptance. In addition to good alimentation, all the hygienic surroundings should be the best possible, and the patient should have just as much out-door exercise as he is able to take with comfort. Of course, we cannot expect to remove the mitral insufficiency and obstruction; and I would like to impress upon you that in practice it is quite as important to avoid doing what there is no indication for, as to do that for which there really is an indication.

DISEASE OF THE AORTIC VALVES.

Here is another cardiac case, the nature of which I do not know; though, as the last was one of mitral, perhaps we might infer that this would be one of aortic disease. Still, it would not be safe to trust to such a supposition; and, accordingly, we will endeavor, as in the last case, to find out what we can from the history and symptoms, before resorting to a physical examination.

Curiously enough, this patient, who is a woman in middle life, also states that she has never had rheumatism. Four years ago, she says, she began to have trouble in her chest, and the first thing she noticed was an unusual beating of the heart. You will note the difference here from the other case, in which the shortness of breath was the first thing that attracted the patient's attention. This palpitation is increased

whenever anything disturbs her, or when she takes much exercise. If the exercise is pretty active, she suffers both from palpitation and shortness of breath. She has some little cough and expectoration, but has never spit up any blood. There is some blueness of the lips, and some œdema. Well, let us take these various features of the case, and see what they point to. The palpitation is evidently the principal symptom, as she tells us that the cough is only of recent origin. Now, what is palpitation especially characteristic of? Aortic trouble, you say; and you are right. And now, having formed a conjecture as to the nature of the case from the history given, let us proceed to find out by exploration what is the exact character of the difficulty. First, you will notice that the apex is away off to the left, and considerably lower down than it ought to be. In listening here, I detect a slight mitral murmur, and it seems to be a direct one. Sometimes this occurs temporarily, where there is a regurgitant aortic murmur, as I find to be present in this case. In addition I am able to make out here the pre-diastolic murmur, which, as it does not seem to have any particular significance, I may perhaps be permitted to urge my claim to have been the first observer to discover. You will find it just after the first sound of the heart, and just before the second sound. There is, as you are aware, no very long interval between the two sounds; but it is long enough to note distinctly the murmur to which I have referred. There is no very great amount of aortic regurgitation in this case. The aortic second sound is not very feeble; but the pulmonary second sound I find to be decidedly loud.

ALLGEMEINES KRANKENHAUS, WIEN.

SERVICE OF DR. ALOIS MONTI.

Notes by C. W. Dulles, M.D.

DIPHTHERIA.

THERE is a vast difference between the circumscribed and the diffused forms of diphtheria. The former is not very dangerous, it seems to be superficial, its membrane is easily removed; the latter is extremely dangerous, its action is deep, its membrane is tough, of disgusting odor, adherent, and leaves a bleeding place when removed. Its danger consists not only in the obstruction to respiration, but in the blood-poisoning.

The treatment must be as follows. When recent, with redness and swelling of fauces, use cold applications to the neck, and give pieces of ice to be held in the mouth and swallowed. Later, when the membrane is formed, use irrigations of water upon the parts. The main points to be attained by these are cleanliness and coolness, which are of the utmost importance. To the water may be added with great advantage two per cent. of chlorate of potassium, or one may use this prescription:

℞ Sodii salicylatis, 4 grammes;
Aquæ fontis, 200 grammes;
Spts. vini rectificati, 1 gramme;

which should be injected against the walls of the fauces and pharynx every two or three hours.

When the membrane is thick and very ill-looking, it should be removed with a piece of sponge held in the forceps or attached to a stick. The sponge may be moistened with water or tinct. iodini.

Dr. Monti thinks very highly of the action of a remedy called *Ethylsantogensäureskalium*, which he uses as an irrigant in half per cent. solution in water.

Cauterants he holds to be injurious, as they irritate the inflamed parts.

General treatment must be most scrupulously carried out. He uses quinine, iron, and salicylate of soda.

Quinine he uses at first in doses proportioned to the fever, varying also with the age of the child.

The most careful and sustaining nourishment must be given to the little patient, —milk, soup, wine, and meat juice. He recommends as a beverage:

℞ Potassii chloratis, 3.00;
Aquæ fontis, 200.00;
Syrupi, 25.00;
M.—Sig. Use as a drink.

PROLAPSUS RECTI.

This is a rare condition among children. It is of varying grades, as of part of the mucous membrane, or the whole of the rectum up to the sigmoid flexure. The latter is usually after the former has been allowed to pass unnoticed for a long time. In most cases, however, we find only a partial prolapse occurring after constipation. Catarrh of the large intestine may be a cause of prolapse, by the frequent stools and the tenesmus occurring coinci-

dently with the wasting of the muscular part of the intestine. In rachitic children* with such a catarrh it not infrequently occurs, disappears for a while, and reappears with the exacerbation of the catarrh. Such cases are best treated by treating the intestinal catarrh, and by irrigation of the intestine with water, beginning with a temperature of 24° to 22° (C.) and descending to that of fresh spring water.

In chronic cases astringent irrigations with solutions of alum and tannin should be used.†

Such are also benefited by local treatment with cauterants. The prolapsed bowel may be lightly touched with nitrate of silver in substance, making a circle round it and radiating lines along the axis of the intestine; after this it should be replaced and confined with a suitable bandage. This should be renewed every three days for three or four weeks. If such proceedings do not effect a cure, one should use the hot iron, especially when the prolapse has lasted long and the sphincter ani is paralyzed. The irons used should be small and applied at the line where the mucous membrane covers the common sphincter. Strychnia and nux vomica by hypodermic injection or suppository he does not think of much value.

The replacement of a prolapsed rectum requires care. If a child is alarmed and screams and strains, it is best to anæsthetize him first. One must not maltreat the intestine with futile manipulations. When the intestine is replaced it should be secured with a retainer of some sort. Dr. Monti uses, and thinks better than any of the more complicated appliances, a series of strips of adhesive plaster, which cross over the mons veneris and the anus, constituting a sort of artificial sphincter. Through the part opposite the anus he cuts a hole, through which the stools pass quite well, and yet the application prevents the protrusion of the rectum.

* Of whom there are an enormous number in Vienna.—D.

† Irrigation of the large intestine, as practised by Dr. Monti, impresses one as a very valuable therapeutic measure, and acts remarkably well in his hands. It is done thus. To an apparatus like that used in Thudichum's douche, so as to secure available and easily controlled hydrostatic pressure, he attaches an elastic catheter. The child is laid on its back with its hips elevated, and he insinuates the catheter into the rectum, allows the water to flow, and as the rectum becomes distended he gently pushes the catheter along until it is well past *the sigmoid flexure*. Then the water, flowing in, fills the whole of the large intestine all the way to the cœcal valve. One who has seen this measure practised by Dr. Monti cannot doubt that criticism adverse to its feasibility and utility must have originated in a failure to carry it out as he does.

TÆNIA.

In the treatment of tape-worm Dr. Monti objects to many of the most frequently used vermifuges, on account of their disgusting taste and the large quantities required. If they produce vomiting on their first employment, they should not be repeated. Others should be found, since their continuance may do the child much harm and fail to accomplish the object. The decoction of pomegranate rind comes under this head. An electuary of the ethereal extract of pomegranate rind (Ph. Austr.) may be used. The new preparation called "*filix acid*" he characterized as dear and useless. The best remedy we have is koosso. The compressed pastilles of koosso flowers, from Erlangen, are unsurpassed in usefulness. He has found no difficulty in their employment; and ten grammes he thinks infallible. The alkaloid *koossine*, if quite pure, is more convenient, because the dose required is smaller; two grammes to five grammes, according to the age of the child, are sufficient. With these two there is no need for any preparatory treatment, and if the head of the tænia does not come away the first time, they may be repeated the next day. Children take them as if they were sugar-plums, and they do not cause nausea or vomiting, nor are they followed by persistent diarrhœa.

Semina cucurbiti from Mexico are said to be very effective, but he has never been in a position to test their value.

Of mechanical treatment alone he does not think much. It may be of value by emptying the large intestine and clearing the way for the other remedies. He uses an enema of one to two litres of water one evening, the next morning he gives the medicine, and in two hours another enema.

TRANSLATIONS.

ENORMOUS EPITHELIOMA OF THE SCALP IN A YOUNG MAN.—M. Louis Saint-Ange reports the following case (*Le Progrès Méd.*, 1877, p. 473). The patient, who was a pork-butcher, 24 years of age, said that he had had, since his thirteenth year, on the parietal region of the right side, to the back and near the median line, a tumor the size of a large pea, indolent, and of somewhat firm consistence. This tumor

began suddenly during 1874 to grow larger without appreciable cause. Consulting a physician, Vienna paste was applied around the border of the tumor, the operation being completed by the aid of a bistoury, and the tumor removed. The wound healed very slowly. In January, 1875, he first came to the hospital, when the small wound still remaining was cauterized with nitrate of silver, and soon healed up. In April, the cicatrix, having been much rubbed by the hat, broke open again, and, in spite of cauterizations and epidermic grafts, remained unhealed, a small tumor gradually developing in its border. In March, 1876, a second tumor formed beside the first, and soon became the larger of the two. These tumors were removed by the knife, but were pretty soon reproduced. Towards the end of 1876 some hemorrhages took place from the tumors, but the patient suffered no pain, and continued in good health, the tumors meanwhile steadily increasing in size. In March of the present year he entered the Hospital de la Pitié under care of M. Léon Labbé, when the following appearances were noted. In the right occipito-parietal region there existed a tumor the size of the fist, which was continued beyond the median line by another tumor of similar aspect, the size of a pullet's egg. These tumors were hard, their entire surface was ulcerated, irregular, vegetating, and somewhat friable. They bled abundantly on the least touch, but the hemorrhage was easily controlled by compression. The skin and bone around the tumors was healthy. The patient was in good health, but pale from repeated hemorrhages. Ablation was performed on March 20, by the aid of the thermo-cautery and the knife combined. The patient made a good recovery, and up to the present time shows no sign of return of the disease. Microscopic examination showed the tumor to be an epithelioma. x.

Eruptions occurring in the Course of Surgical Septicæmic Affections.—M. Terrillon (*La France Méd.*, 1877, No. 47) contributes notes of a case of this kind, to which are added reflections on the condition in general. He cites Verneuil as giving the following conclusions in a work published by him in 1868. 1. In pyæmia the skin may become the seat of various eruptions. 2. This symptom is rare, judging from the silence of authors. 3. It is the herald of approaching death. Braidwood, in his work on Pyæmia, published the following year, gave considerable space to a description of these eruptions, laying particular stress upon a variety resembling erythema. It is characterized by a redness of the skin invading the limbs and trunk, and of a bright-red color. After having lasted five to eight hours, it disappears. In general it shows itself on the third to fifth day after the appearance of the first chill. This eruption corresponds with the scarlatiniform rash of the French. Various other authors subsequently published cases, an analysis of which shows, according to M. Terrillon, that these eruptions may be classed under two heads: one class supervening upon surgical operations, especially those performed about the urinary passages. These are very various in form, ranging from simple erythema to the most marked pustules. The other class appear in the course of purulent infection or septicæmia. The latter are less various in appearance, the scarlatiniform variety being most common. T.'s case, of which notes are given, was that of a man who had been severely burned. Six days later he had a very slight chill, and on the following day a diffused, raspberry-colored, scarlatiniform eruption appeared on the thighs and abdomen, which spread gradually over the remainder of the body. The temperature, which had increased very slightly during the evolution of the eruption, rose on the ninth day, from which time the patient showed evident signs of pyæmia. The eruption became much lighter towards the end, except in the neighborhood of the trunk, and the patient died on the fourteenth day.

Microscopic examination of pieces of the diseased skin, taken away the evening before the patient's death, showed no signs of inflammatory change,—only congestion.

T. considers his case particularly interesting from a prognostic point of view, because the eruption appeared some time before the first sign of purulent infection. The fact of a previous chill having occurred was not noticed by the patient, who only remembered it after questioning. The fact that the eruption appeared the next day after the chill, instead of four or five days, as in Braidwood's cases, is also of interest.

The question of scarlatina need scarcely come up in these cases, since all other symptoms of this affection are wanting.

Nevertheless Terrillon prefers the term scarlatiniform to designate this eruption, rather than erythema, employed by Braidwood, on account of its appearance and mode of evolution. The scarlatiniform eruption described by Forget, Smith, and Sée as occurring in children operated upon during an epidemic of scarlet fever, Terrillon regards as nothing more than the latter disease itself, unchanged in any essential characteristic. Terrillon concludes with Verneuil that when after a surgical operation or a traumatic lesion a scarlatiniform eruption appears, pyæmia is to be feared. When this eruption has been preceded by a chill, however slight, the prognosis is extremely unfavorable. x.

Preparation of Nitrate of Pilocarpine.—M. A. Petit made the following note at a meeting of the Société de Thérapeutique (*Bull. Gén. de Thérap.*, 1877, p. 524): "I have succeeded with great facility in obtaining nitrate of pilocarpine beautifully crystallized in flattened plates and perfectly white, by the following process. Jaborandi leaves are exhausted by displacement with alcohol of 80° containing eight grammes of hydrochloric acid to the litre. The alcoholic liquor is distilled, and the extractive residue is dissolved in distilled water, a considerable quantity of resin separating. Ammonia in excess and chloroform are added to the alcoholic solution, the chloroform taking up the pilocarpine. The impure pilocarpine obtained as a residue by distillation of the chloroform is exactly saturated by dilute nitric acid. The filtered liquid evaporated over a water-bath gives a dark-colored crystalline mass of nitrate of pilocarpine. This is placed in a cylindrical displacement apparatus, slightly pressed down, and lixiviated with cold alcohol, which dissolves the coloring-matters, leaving the crystals already quite white. To obtain fine crystals, these are dissolved in boiling absolute alcohol with the addition of a few grains of animal charcoal, then filtered, when, on cooling, perfectly white magnificent crystals of nitrate of pilocarpine are thrown down. The percentage obtained by this process is considerable." M. Petit has obtained five grammes of nitrate of pilocarpine from one kilogramme of jaborandi. The nitrate of pilocarpine has a power for the ray *D* equal to 76°. It gives with chloride of gold a precipitate formed of beautiful needles, and with chloride of platinum of fine prismatic crystals in stellate groups. These salts permit the determination of the equivalent of this alkaloid. Nitrate of pilocarpine is soluble in eight parts of distilled water at 15° (59° Fahr.), very slightly soluble in cold absolute alcohol, but soluble at the boiling point in about seven parts of the same alcohol. x.

Psoriasis and Epithelioma.—At a recent meeting of the Société de Chirurgie (*Bull. Gén. de Thérap.*, 1877, p. 321), M. Tillaux called attention to certain cases of psoriasis which he thinks may turn out to be the first stage of epithelioma. As regards psoriasis of the tongue this has already been asserted; but M. Tillaux brought forward a case occurring in another region. He operated recently upon a patient suffering from an enormous epithelioma situated on the back at the juncture of the dorsal and lumbar regions, nearly over the median line. Although the mass was as large as the top of a hat in diameter, the patient suffered little. He had consulted Hardy in 1866, who called the affection an *isolated patch of psoriasis*. Two years later he returned again to Hardy, who repeated the opinion. In December, 1870, he saw Bazin, when the diagnosis of *adenoma, ulcerated in the centre*, was made, which was changed a little later to "*cancroïde*." M. Tillaux operated on this patient a month or so ago,—that is, ten years after the appearance of the psoriatic patch,—removing the entire mass. Only the skin was involved. Microscopic examination showed degeneration of the sudoriparous glands. Other members of the Society pointed out that the so-called psoriasis linguæ has no connection with psoriasis of the body, and that the latter often exists for years without resulting in epithelioma. In M. Tillaux's case the supervention of epithelioma seemed to be regarded as merely a coincidence. x.

Arrest of Epileptic Attacks.—An epileptic woman experienced a peculiar sensation in the pit of the stomach previous to each attack, which seemed to pass upwards under the sternum, and then downwards again before the onset of the fit. By swallowing a quantity of common salt in good time, a decided excitation was set up in the gastric mucous membrane, which seemed to act reflexly in preventing the spasm. In similar cases where the aura is sufficiently prolonged and marked, Meyer recommends large doses of quinine. —*Centralbl. f. Med.*, 1877, p. 160. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, AUGUST 4, 1877.

EDITORIAL.

WISDOM FOR THE DOG-DAYS.

PHILOSOPHERS have defined man as the animal that talks,—that laughs,—that wears clothes,—that worships; but in all this their plummet-line has never touched the bottom of his being, or reached the essential of his attributes. He is the animal that wastes. The fish of the sea disappear before him, rotting by tens of thousands on the shore; the innumerable buffalo whiten with their bones the prairie, and are not. At times, fiercer and wilder than any torrent, his nature breaks forth in a way that no savage beast can imitate. Fire alone is swift enough for his use: its ruin and blackness can alone appease his lust.

It is not, however, occasional phenomena such as these which show most forcibly how deeply the passion for wasting is centred in man. In his daily life of toil, he works that he may waste. He degrades, tramples upon, starves humanity, drives it to strikes and riots, that he may waste. The waste of the world saved would make it a paradise, and all men rich.

We remember watching with cynical delight a knot of total abstainers, at a large party, who were, with great gravity, severity, and sorrow, commenting upon the yearly waste in alcoholic drinks, and who the next moment were gorging themselves with terrapin at twelve dollars a dozen, said abstainers having already eaten that day more food than their bodies required.

As a man, the editor of the *Times* also fulfils his destiny and bears his load of the great mountain of waste. At the present moment (11 P.M.) he is writing by impure, expensive, and detestable gas, yellow and flickering, hot and mosquito-drawing, instead of by the cool, fresh, costless light of to-morrow at 6 A.M. It is said that in London alone there are 2,250,000 gas-burners, burning on an average 730 needless hours a year, and consuming each 2200 feet, or, *in toto*, 5,000,000,000 cubic feet of gas annually, costing, at current rates, about $4,500,000.

Alcohol, food, light,—simple by-plays in the carnival of waste. Alcohol has its rival in gas, and gas in superfluous food, and superfluous food in useless clothing, and useless clothing in still more useless trinkets, and these in a thousand other things, and man remains, above all things and creatures, king of the waste.

IF there be any practice of the human animal more indefensible than all others, and more complete proof of the total depravity of the race, as insisted upon by theologists, it is the power which fashion has over the article of clothing. Being of the masculine sex, and having a great desire to suffer no more in this world than is necessary, and being further convinced that it is the mickle ills which together make the muckle sorrows of life's woes, we are thankful that in this country the revolt of the stronger sex against set forms of dress has been so wide-spread and successful.

Our transatlantic brethren do not seem equally emancipated; and we groan for them and with them. The London *Lancet* asserts, "There are probably few physicians who would have the hardihood to present themselves at the door of a patient covered with a felt, or even a straw, hat, let the sun's rays be ever so unbearable," and that "it is probably vain to hope the dress of highly-civilized men and women will ever be determined by considerations of science and convenience." With high-heeled shoes and other similar abominations pattering over our entry floor or parading the street before our office window, we cannot say much for women; but for men we think the bands of

social custom are already so far relaxed in this country as to allow of the almost immediate adoption of any really valuable change of attire, and the usual dress of an American gentleman seems to be both sensible and convenient.

CORRESPONDENCE.

LONDON LETTER.

THERE is very little going on here in the medical world, so it may be well to give your readers some fairly definite idea of the state of the profession in England, Scotland, and Ireland. Here we have two distinct classes of medical men,—the general practitioner and the consultant. The first is ubiquitous, as may be supposed, while the latter is necessarily confined to towns. Of old, a man almost invariably commenced as an all-round man, and then developed into a consultant as time went on and opportunity served. A man got a practice and a reputation, and then his advice was sought by the patients of other medical men to supplement theirs, or he was called in by the practitioner when needing a second opinion. Thus a man gained his reputation for himself according to his experience. But now the matter is different, and a considerable number of men set out from the first with the intention of being consultants whether they have had any experience or not. Of course, in order to do this they must possess considerable private means, an essential matter. A number, however, still gradually develop themselves from the lower grade, and these men as a rule are the more active-minded of the consulting body, —as Sir William Jenner, for instance.

Perhaps the most lucid explanation of the complex relations of the members of the medical profession to each other will be furnished by giving a brief description of the licensing bodies of Great Britain, and the men who present themselves before them. Thus, in London there is the well-known Royal College of Surgeons, with its two diplomas, the membership or general portal, taken by all to commence with; and the fellowship, the higher diploma, which is taken by examination, and a very severe examination too, by the young men who aspire to remain about the London hospitals or to go into prominent positions in the larger provincial towns. The fellowship is also given to a certain number of men who have distinguished themselves, and who are always middle-aged at least; but this is not to any great extent. Then there is the Royal College of Physicians, with three grades. The first is the license to practise, only recently instituted, and the second, the membership, the stamp of a man who has left general practice, or never intends entering it; the third, the fellowship, confers no further privileges, but merely forms a more select circle, who furnish the examiners and other officials, and to whom belong exclusively the right to give the different lectures before the college, and the pecuniary rewards of examinerships. The college guarantees the conduct of its members and fellows, and rebukes such as offend against its by-laws; and if any members should pursue a course of conduct of which the fellows disapprove, woe to their hopes of ever being made fellows. There are some of the best-known names in London who cannot put F.R.C.P. behind them, and never will; though some evade the difficulty by getting the Fellowship of the Edinburgh College, which is not so strict about its English fellows. The membership of the College of Physicians, and the fellowship of the College of Surgeons, are the marks of the higher men, and are absolutely requisite for any appointment on the staff of hospitals of any reputation. They are the portals through which all consultants must pass for the best metropolitan hospitals, though not for all the provincial ones: a man may have his M.D., etc., from anywhere he likes: these are not essential, they are only auxiliary. Then there is a third body, the old Society of Apothecaries, whose license (L.S.A.) was once the only legal qualification, but which has now fallen considerably, and is taken only by men who must have a medical as well as a surgical qualification in order to hold poor-law appointments; men who funk the license of the College of Physicians go in for the L.S.A., so that it is now almost exclusively taken by an inferior class of men, though a few take it in an emergency till they can pass the L.R.C.P.

Such are the English examining bodies not being universities. Of these latter there are Oxford, Cambridge, Durham, and London. The three first have teaching schools attached to them, but they turn out a very limited number yearly; while the London University is simply an examining body, and is not particular where the examinee has gained his—now it must be written *his* or *her*—knowledge, provided the knowledge is forthcoming and the stipulated course of education has been complied with. The examinations of the London University are severe and searching, and a graduate thereof usually holds himself (there is no herself yet) to be quite an upper-crust individual. Most men now who aspire to hospital appointments take the M.B. and M.D. London in addition to the Membership of the College of Physicians or the Fellowship of the College of Surgeons.

These different examining bodies do not require attendance at any particular medical school, so long as their course of study has been completed and the examinee has the requisite certificates of his attendance on lectures, etc. The medical schools in the provinces—as Birmingham, Leeds, Man-

chester, Liverpool, and Bristol—educate, but do not examine.

The medical school at Newcastle-on-Tyne is now intimately connected with the University of Durham. The men who come up from the provincial schools generally know a lot more of actual practice than the London-taught men, except where these are sons of medical men, or, more rarely, have been apprenticed. The old scheme of apprenticeship, which recognized that medicine was an art as well as a science, is now almost entirely fallen into disuse, a fact many regret.

The course of study required by these different examining bodies is not uniform, and some diplomas permit of a briefer course of study than others. This produces much professional uneasiness, as when a man has once got a diploma he can practise anything and anywhere. Consequently, there is much agitation going on for a "State examination," which alone shall confer the right to practise, leaving each man to go in for higher qualifications in addition, or to let them alone, as he likes; just as a man requires to give evidence of at least two years' work in actual practice after taking the degree of M.B before he is admitted to the M.D.; and in the case of the membership of the College of Physicians, a stiff and thorough examination, including clinical examination in the wards of a hospital, is necessary, no matter what a man's qualifications or his experience.

From this bird's-eye view of the subject it will be seen that some men are educated straight away for the higher grades from the first, while others struggle into the higher grades after more or less experience of a humbler position. From the first class are drawn the greater proportion of the teaching staff of each metropolitan medical school; and these men are usually sound teachers of what is required for the different examinations, though they often are unknown beyond the walls of their hospital and school. These men are largely persons of means and of some social standing by birth, and are exactly in the position of men who join the army, the church, or the law in order to have something to do in life and to add somewhat to their income. They usually have the advantage over others in the start in life, but they do not commonly hold the same prominent position at the finish. The man who has had a harder and more arduous career as a rule overtakes them as middle life is reached, and the more severe training tells in what is vulgarly termed "the long end." But those men who have social position, friends, influence, and means, get away better at the start of the race of life; and this class of men is on the increase, at least in London, Edinburgh, and Dublin; but whether this is well or unfortunate for the profession it is not at present possible to say. It must not, however, be supposed that the metropolitan hospitals are so suicidal as to reject all talent of an impecunious order; and now scholarships are being instituted so that enterprising but poor students may be enabled to pursue their college career, and even to remain about the place till something turns up for them, private tuition adding something more to their income.

Now for the Scotch schools. There stands first the University of Edinburgh, of world-wide renown. It now confers degrees medical and surgical. The first step is the M.B. and C.M. These degrees have been instituted of recent years,—since 1868,—and are taken after the ordinary course of study, instead of the M.D. as of yore. Two years of actual practice are required before the M.D. can be taken; and in addition a medical thesis is absolutely necessary. This is peculiar to Edinburgh amidst British universities, and is creditable to it. It must be upon some medical or surgical subject, and if not up to the mark the candidate is rejected on it; so that it is not a mere idle form. It compels a man to work at something and to formulate his ideas, and often furnishes the groundwork of special labor in after-life. In the old days, when there were no means of getting an M.D. in London, it was usual for enterprising men to go to Edinburgh for a winter session and so qualify themselves for graduation; but since the formation of the London University this practice is largely fallen into disuse.

In Edinburgh there is also the Royal College of Physicians, with three diplomas: (1) the license; (2) the membership; and (3) the fellowship. The two latter are confined almost entirely to local men, but a few are to be found in England; but the license is largely found across the border, as, until the London College created the license diploma, it was the most reputable medical diploma procurable without residence.

Then there is also the College of Surgeons, with two diplomas, the license and the fellowship. These are almost exclusively Scottish, and are good qualifications. Then there is also the ancient University of St. Andrew's, which grants ten doctorates of medicine yearly to the most deserving applicants, without residence or other examination than on practical subjects, provided they are over forty years of age and are suitably recommended. It also grants the ordinary M.B. and C.M. Many of the best men in England hold the M.D. of St. Andrew's, and these St. Andrew's graduates have a yearly volume of Transactions. Then there is the University of Aberdeen, noted for the careful, painstaking industry of its hard- and long-headed graduates. Most of them who can afford it go in for the art classes as well, and have the M.A. as well as the M.D. Aberdeen permits of its M.D. being taken by qualified men after a residence of one winter, and many good men and true go to the granite city for this purpose when meditating taking a step forward in life. It thus occupies a posi-

tion like that once held by Edinburgh as regards English graduates. In Glasgow there is also a university conferring the usual degrees; the Anderson University being merely an economical teaching institution. Besides the University of Glasgow, there is the Faculty of Physicians and Surgeons, with its two diplomas, the license and the fellowship, the latter little known except in the west of Scotland. The license has a wider area, and a somewhat questionable character as a refuge for those who have failed elsewhere, however far this reputation is deserved. In order to meet the requirements of the English Poor-Law Service, the College of Physicians in Edinburgh made arrangements with the Edinburgh College of Surgeons to grant their conjoint diplomas after one compound examination, so that "the double," as it is termed, carries the requisite medical and surgical qualification required by law for poor-law appointments. This conjoint examination has never called forth critical comment, as the examinations of the Edinburgh College of Surgeons are of high testing power. But the Edinburgh College of Physicians also made arrangements with the Glasgow Faculty of Physicians and Surgeons for a similar "double," the Faculty diploma to stand as a surgical qualification; and this has evoked a good deal of bitterness, it being alleged that while the examination questions look well on paper, a low standard of answer is adopted, so that inferior men may pass. But this may be merely scandal or ill-nature on the part of the other diploma-granting bodies.

It will be evident from the foregoing that considerable confusion exists in the medical profession in Great Britain, as any of the above-mentioned degrees or diplomas entitles a man to be on the Medical Register and so to practise anywhere and anything that will go. A man holding the license of the Faculty of Glasgow may practise alongside an M.D. London, and beat him if he can; and in fact he sometimes does. An apology may be due to the Glasgow faculty for the position it occupies in the above comparison; but all comparisons are unsavory.

But this is not all: there are the Irish qualifications still to be reckoned with. The writer does not feel so thoroughly at home with the Irish qualifications, and so may do injustice; but it is not by design or malice.

In the first place comes the University of Dublin (Trinity College), granting the usual degrees and also a license in medicine. Then there is the Queen's University, with three teaching colleges, Belfast, Cork, and Galway: it grants degrees in medicine and surgery. There is also an Apothecaries' Hall in Ireland, and its qualification entitles the holder to practise in England if he pleases, and is a qualification in medicine for public appointments. Ireland, too, has its Royal College of Surgeons, with license and fellowship of unimpeachable reputation. It has also another diploma-granting institution, the King and Queen's College of Physicians in Ireland, first incorporated in the time of Charles II., and then re-incorporated under its present title under their majesties King William and Queen Mary, A.D. 1692. This venerable institution must be spoken of with due regard to its years, but, unless it is foully slandered, it passes through its portals some indifferently educated people. As I do not know any of its licentiates, I may be in error, but nothing personal is intended. It is said to meet a want in the country of its adoption, and to deserve well of its licentiates, but it is not in great favor in England. It furnishes a large number of the candidates for the army and navy services; but as I am a man of peace, and not remarkably endowed with personal courage, any comments in the present troubled state of the services might be followed by unpleasant consequences, as the Hibernian is notoriously combative: so they will be withheld. This institution has recently opened its portals to the lady students, with the gallantry for which the Irish are famous, and this may have added to its unpopularity.

Such is the confusion reigning amidst medical corporations granting licenses to practise, and the universities conferring degrees which are also legal qualifications, and out of which the General Medical Council will have to make law and order, or fail. Failure is infinitely more probable, and it is likely that at last the State must interfere, and have one general "State examination," after passing which each man may take what degree or diploma he chooses, as ambition or caprice may dictate. Any one of the numerous qualifications given above will entitle a man to have his name on the Medical Register, after which he can practise anywhere and anything. It is only for public appointments that certain definite qualifications are absolutely necessary: thus, for instance, both a medical and a surgical qualification are required for poor-law appointments; the Membership of the College of Physicians, or the Fellowship of the College of Surgeons, for all staff appointments at the metropolitan hospitals of good repute.

There are beyond these qualified practitioners a certain number of irregular and unlicensed practitioners. First comes the large class of druggists and chemists who prescribe across the counter, and who do a very extensive business therein, doubtless doing much good mixed up with no little harm, but who are very faithfully believed in by their clients, especially the poor. A battle is going on to stop this counter practice of chemists in the interest of the general practitioner; while the chemists, in their turn, are striving to put down the practice of medical men making up their own medicines instead of sending prescriptions to be dispensed. Then comes a body of irregular practitioners who have no

legal qualification either as practitioner or chemist, but either have foreign diplomas not recognized by the British authorities, or else bogus degrees: and this enterprising body has so harassed the regular practitioners that a society of the latter has recently been formed to prosecute them under the Medical Act, and legal proceedings against them have been pretty active of late. Then there are quacks of low degree, who are herbalists, or possess salves of secret composition, often of no small value, whatever may be said of them,—for the writer well remembers how such a quack once made him look very small over a case of obstinate ulceration of the leg on which he had fruitlessly bestowed no small pains. A poultice of carrots or turnips, boiled and mashed, often gives great relief to knots of varicose veins when undergoing subacute inflammatory action, and may often be resorted to with advantage in such cases before using lead and opium lotion. Such quacks are found chiefly in the low quarters of towns, where they enjoy much local repute. The water doctor, who made his diagnosis solely by examination, usually merely ocular, of the urine, and who flourished in the times of Sir John Falstaff, is now nearly extinct. A family of them existed in Yorkshire up to a very recent period, but the last one died a year or two ago. The family possession of certain qualities, as well as secret remedies, divulged often as deathbed revelations of priceless value, and really constituting heirlooms not to be despised in a pecuniary sense, is not so strongly believed in now as of yore, but the belief still lingers here and there. Cures for stone are no longer purchased by the national authority, and recipes for the certain and immediate cure of hydrophobia now only find their way into the newspapers in the form of a letter from some credulous clergyman who believes himself possessed of some knowledge of medicines.

A better-founded claim to special knowledge may be made out in favor of bone-setters, a body of men exceedingly offensive to rural practitioners. Quite common are these families throughout the country, and they often succeed where the regular practitioner has failed, to the great chagrin of the latter. The bone-setter is usually a man possessed of great manual dexterity, with some legendary information of considerable value, and, as he gets a fair amount of practice, his hand is kept "well in," usually better "in" than the medical men around him. He also uses much more violence, and so not rarely succeeds in reducing dislocations where surgeons have failed; but, while this not uncommonly gets him much prestige, it is the most dangerous of his gifts, and often gets him into trouble in the case of diseased joints, which are made much worse by his severe manipulation. This possession of the bone-setting faculty is of no small utility to many families, and forms a comfortable addition to their income, and is really valuable to a family of handicraftsmen who often possess considerable skill, chiefly derived from their manual dexterity. From ignorance of anatomy, they often explain the good they do by attributing it to the reduction of some small bone in a large joint, which small bone the doctor well knows does not exist. But the patient readily swallows the explanation when served with the sauce of restored motion and freedom from pain. Recently a book has been written on bone-setting, in which the practices of a bone-setter of high reputation in London are set forth by a medical man who for long was admitted to watch his method of proceeding. It will well repay perusal, and shows how the regular practitioner has derived no small portion of his knowledge from his irregular ancestral specialists. From such specialism the general practitioner was evolved, and into specialism the higher order of the profession must develop again as the stores of knowledge accumulate. Such are our medical men, regular and irregular: some get a bit of information how and where they can, and often make excellent use of it; others are highly and systematically trained from the outset, and yet do little: indeed, it may be said of some of them,

> "They never sing,
> But die with all their music in them;"

and not rarely the music found in them at death does not exist in any very disturbing amount.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, APRIL 12, 1877.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

Intracapsular fracture of femur—Thrombosis of left femoral vein extending to vena cava. By Dr. J. C. WILSON.

THE specimen was removed from the body of a gentleman aged 67, who weighed one hundred and sixty-seven pounds. He fell upon the sidewalk, January 24, and received the full force of the blow upon his left hip. Shortly afterwards he was etherized and examined by Dr. Wilson and Dr. J. H. Brinton.

The foot was markedly everted; there was a shortening of the limb of apparently one-half inch; the arc described by the great trochanter in rotation seemed to be of shorter radius than that of the opposite side; after free movement, crepitus was felt; it was, however, obscure.

A diagnosis of fracture (intracapsular?) of the neck of the femur was made.

The treatment selected was weight-and-pul-

ley extension, and counter-extension by elevating the foot of the bed. Sand-bags were employed.

Four days afterwards, signs of pelvic cellulitis supervened. These shortly subsided. February 12, the leg became swollen, tense; there was occlusion of the femoral veins, and inflammatory infiltration of the tissues in the line of the great vessels. Fever set in, the temperature rose to 102° Fahr., and remained between 99½° and 102° until he died, March 26. A bedsore had formed over the sacrum. The urine was not albuminous. Liver dulness was enlarged. There were no pulmonary symptoms. Heart-sounds feeble; the first valvular. The pulse feeble; no murmur.

The *post-mortem examination*, made twenty-six hours after death, confirmed the diagnosis of intracapsular fracture. In addition, the heart was found fatty, the lungs slightly adherent but otherwise normal; the liver fatty, and the kidneys cirrhotic. There were evidences of inflammation on the inside of the pelvis opposite the acetabulum, thrombosis of the left femoral and iliac veins extending to the vena cava, as shown in the specimen, with inflammatory infiltration of the tissues surrounding these vessels.

Dr. C. B. NANCREDE said that this case of thrombosis of the iliac vein was interesting in connection with the paper he read before the Society a year ago, furnishing an illustration of what he then tried to prove. Here is an injury, a blow over the region of the trochanter major. We know that even a slight blow will produce clotting in the smaller veins, and inflammatory action will be set up by these—the venous clots—in the surrounding tissues. In the venous clot we have present one of the factors necessary for the formation of a clot,—viz., the fibrino-plastin, in the shape of the blood-cells. Now let blood containing an excess of the second necessary factor—namely, *fibrinogen*—resulting from the retrograde metamorphosis of tissues, etc.—reach the preformed clot containing the fibrino-plastin, and it will go on extending until no more blood running from the inflamed spot can reach it. In the case before the Society that point should be about the brim of the pelvis, since normally all the blood from the injured territory would be emptied into the femoral below this point.

Upon examining the specimen, however, we find that it extends still higher. How can this be explained? In one of two ways: either blood containing retrograde matter was conveyed from the acetabulum through the pelvic bones, and thus was poured into the external iliac through the internal iliac vein, or, what is still more probable, the clot, irritating the tissues at the brim of the pelvis, owing to the greater pressure due to the subjacent bone, established a new depot for the absorption of inflammatory products, and thus extended the clotting until all venous blood-supply was prevented from reaching the thrombosed vein from the inflamed extremity. This second inflammatory depot is not assumed for the purpose of explanation, but is specially noted by Dr. Wilson in his remarks.

Dr. HODGE said the specimen was interesting from several points of view. First, the fact of embolism being present was of great interest as regards the origin of the clot. A slight cause will produce a clot when least expected. He recalled a case which occurred at the Presbyterian Hospital, in which a leg had been amputated by Dr. T. B. Reed on account of disease of the ankle-joint. When the patient had almost recovered, and the wound was nearly healed, the opposite thigh became very much swollen and tender over the femoral vein, and there was every reason to suppose a clot had formed in it. This condition presented itself immediately after the man was first lifted from his bed. He recovered.

Another point of interest was in reference to the formation of bony nodules in the capsule around the joint. They do not occur uniformly, and their explanation is more or less difficult. He thought the most reasonable explanation attributed them to fragments of periosteum displaced at the time of fracture, just as the periosteum produces bone after transplantation.

Another point of interest is the apparent injury to the inner surface of the pelvis opposite the acetabulum. He thought this could be accounted for in two different ways. It was possibly due to the direct effects of the original injury, as the acetabulum may be broken by the head of the femur driven forcibly against it. Or this condition may arise from inflammatory action causing softening of the bone.

Still another point, Dr. H. thought, was that notwithstanding the absence of callus, which is characteristic of injuries in this locality, a great degree of firmness exists. Whether this is due to an attempt at union, or whether this is one of those rare cases of partial fracture of the neck of the femur, can only be determined by sawing the bone.

A final point of interest, he thought, was the preservation of the round ligament, which from its direction, as the members of the Society may notice, bears out the inference that one of its uses is to aid in the support of the body by bearing a portion of its weight in the erect position.

Dr. WILSON said that the crepitus, the limitation of the arc of a circle described by the trochanter major, together with the shortening, led them to believe the fracture was a complete one.

Dr. NANCREDE thought that there was no evidence of any union. The limb had never been stepped upon, and therefore there was none of the ordinary displacement usually

seen, and the apparent union was only the result of the interlocking of the fragments.

He thought that if he had taken a few more steps there would have been no doubt about the presence of a complete fracture. Repair was impossible with such interruption to the circulation as existed. The edges of the fragments were as sharp as if broken but yesterday, and, as is well known, the first step towards union should be a proliferation of the connective-tissue cells of the adventitia of the Haversian vessels. This would induce absorption of the earthy matter of the bone, and rounding of the edges of the fragments would ensue.

A needle found post-mortem within the cranium. By Dr. H. LENOX HODGE.

Upon removing the calvaria of a subject in the anatomical rooms of the University of Pennsylvania, a sewing-needle of medium size was found lying on the right hemisphere of the brain, nearly parallel to the superior longitudinal sinus, about an inch distant from it, and about an inch and a half behind the fronto-parietal suture. The point and the eye of the needle were both unbroken. The point was directed backwards. The needle was much oxidized, and attached to the arachnoid surface of the dura mater by old bands of lymph near the larger extremity of the needle.

No history of the cadaver, an adult male, could be obtained.

The needle appears to have given rise to no important changes, and had no apparent connection with the cause of death. The man seems to have died of phthisis.

It is a matter of interest how the needle reached this position. Other methods might be suggested, but it is most probable that it entered the anterior fontanelle during infancy, and thus passed to the place where it was found.

Dr. HAMILTON OSGOOD asked what was the appearance of the needle.

Dr. HODGE replied that it was black and tarnished.

Dr. SINKLER thought it most likely that it had entered the fontanelle during infancy, as by no muscular contraction could it obtain the position in which it was found.

Dr. F. P. HENRY said his experience went to show that instead of corrosion of needles long buried in animal tissue, there was an actual addition of new material. A short time ago he had removed with great difficulty a needle from the biceps muscle of a girl. It was three times the thickness of an ordinary needle, very rough and uneven, and covered with a hard mineral-like deposit, to which was owing the increase in thickness.

Dr. WILSON recited the case of a sewing-girl who was said to have swallowed a paper of needles, many of which were removed from different parts of the body. These were all smooth, but blackened and tarnished. He had recently removed from the foot of a boy a needle which had been imbedded four months. It was simply tarnished.

Dr. SINKLER had removed a needle from a foot after it had been there imbedded for three months. It was smooth and blackened, but not corroded. He placed it in his pocket-book, and on examining it after a few weeks he observed that the rusting process had taken place.

Dr. RICHARD A. CLEEMANN said that he had made use of the fact that a needle after being imbedded in tissue for a certain length of time becomes tarnished. He had extracted a fragment of needle, and was anxious to determine whether it was all that entered the foot. The broken end was tarnished. He fractured the needle, and, observing that the fractured ends presented the usual steel-like lustre, he concluded that he had removed the whole fragment. Had he broken it off, the fractured end of the removed portion would have been bright.

Gangrene of the epiglottis. By Dr. CARL SEILER.

The patient, a man, presented himself at the infirmary of the German Hospital. Nearly one-half of the larynx had sloughed off in two weeks. The odor was so horrible that a laryngoscopic examination was almost impossible. The man was recommended to go to a general hospital, and has not been heard of since.

REVIEWS AND BOOK NOTICES.

THE GERM THEORY OF DISEASE. By T. MACLAGAN, M.D. London, 1876.

We commend this book most heartily to any one desirous of knowing upon what slight foundations the "germ theory" at present rests, and of wondering at the power which man has of evolving from his inner consciousness, if only the little word *if* be granted. The germ theory is not only absolutely unproven, but is apparently further from being proven than it was ten years ago. Although an enormous amount of effort has been made to lift it out of the slough of doubt, it still remains among the rhetorical problems.

We have no space to follow Dr. Maclagan through his ingenious speculations, and must confess to an absence of enthusiasm for the work. In science the day of faith seems to us forever past, and hard, close observations, discovery of new facts, new testing of old facts, solid, slow building-up of generalizations, remain the only work worthy of attention. Theorizing from analogy may be useful to the investigator as a means of laying out work, but is of just such value and no more. Books of a character like that before us should be classed and enjoyed as "works of the imagination," not as scientific treatises. From this stand-point we repeat

that Dr. Maclagan's effort is a most laudable one, and the result gives him a high rank among writers of fiction.

FRUIT AND BREAD. Translated from the German of GUSTAV SCHLICKEYSEN by M. L. HOLBROOK, M.D.

This book is the forerunner of a feminine millennium, when builders of ranges and cooking-stoves shall have sunk into a perdition of utter ruin, and Biddy shall no longer from her fortress in the rear tyrannize over the household. Whether some misguided males will not sigh for the flesh-pots of Egypt and the slavery of Bridget, we do not dare to express an opinion upon. Cooking is to be done away with; but, owing to the hardness of our hearts, and his own great tenderness, M. Schlickeysen does not demand that it shall be abandoned at once. He says, "We must concede that it is in almost every case injurious, and that it should be dispensed with so far as our present habits of life will admit of, and with a view to its final and complete disuse."

To any of our readers who desire to learn how to make a considerable journey "with a few apples in the pocket," we heartily commend the volume. Like the doctor who said to his rheumatic patient, "Be sure and tell me if that prescription does you good, as I have the rheumatism myself," we should be glad to hear the report. Schlickeysen is the apostle of apples and wheat, on which, *in puris naturalibus*, he is convinced the race ought to subsist. We are afraid an adaptation from "Mother Goose" would accord with the result:

> Apples and wheat were the chief of their diet,
> And yet the whole race would never be quiet.

GLEANINGS FROM EXCHANGES.

THE ASPIRATOR IN STRICTURE OF THE URETHRA (*Med. Press and Circular*).—P. L. O'Neill, Surgeon to Union Infirmary, Athy, reports a case in which he and others vainly attempted to pass a catheter to relieve retention of urine. The bladder being greatly distended and the patient's sufferings intense, he aspirated it, and in twenty minutes after the operation introduced a No. 1 catheter with the greatest ease. By degrees larger sounds have been introduced, and the patient is happily progressing.

FATAL POISONING BY OIL OF CHENOPODIUM.—In the *American Medical Bi-Weekly*, July 21, Dr. M. R. Wright reports cases of poisoning by wormseed oil. The following is an abstract of the most interesting one:

Case III.—Mr. Morgan, aged twenty-two, a farmer; constitution rather delicate; previous health good; took, thinking he was "wormy," about two drachms of the oil of chenopodium with some sugar. In about three hours he complained of sick stomach, and was vomited two or three times with salt-and-water. In a short time he began to complain of deafness, and in ten hours after taking the oil he was completely deaf. Complained of nothing else, and ate a moderately hearty supper. In the forenoon of the 19th, condition about the same; went about the house and took some nourishment. In the afternoon he became irrational. On the 20th, condition much worse; blind and unable to speak. Parents now became alarmed, and sent for a physician, Dr. C. J. Slaughter. He found him on his arrival (10 A.M.) perfectly insensible; pupils dilated; surface cool; pulse 120 and feeble. Convulsions came on very soon, and continued to recur at intervals of half an hour or more until his death on the 21st, seventy-six hours after taking the poison. Revulsives and chloral hydrate were freely used, but without making any perceptible impression.

RATTLESNAKE-BITE—RECOVERY.—In the *Medical and Surgical Reporter* of July 21, Dr. J. J. Knott reports a case of severe bite of rattlesnake successfully treated by a very large number of injections of carbonate of ammonium (amount not stated) into the veins, aided by some pints of whisky and many grains of quinine. The doctor attributes the recovery to the ammonia, and noticed an immediate alteration in the color and crasis of the blood following its use.

ANEURISM OF HEPATIC ARTERY.—A case of this rare affection, with death from multiple abscess in the viscus, is reported in the *Canada Medical and Surgical Journal*, July, 1877.

MISCELLANY.

BOYLSTON MEDICAL PRIZE QUESTIONS.—At the annual meeting of the Boylston Medical Committee, held June 4, 1877, it was voted that no dissertation worthy of a prize had been offered on either of the subjects proposed for 1877.

The following are the questions proposed for 1878:

1. Antiseptic Treatment. What are its essential details? How are they best carried out in practical form?

2. Diphtheria: its causes, diagnosis, and treatment.

The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1878, will be entitled to a premium of seventy-five dollars.

Dissertations on the above subjects must be transmitted, postpaid, to J. B. S. Jackson, M.D., Boston, *on or before the first Wednesday in April*, 1878.

The following are the questions proposed for 1879:

1. The relation of animal contact to the disease known as hydrophobia.

2. Evidences showing that so-called "filth diseases" are not dependent upon "filth."

The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1879, will be entitled to a premium of two hundred dollars.

Dissertations on these subjects must be transmitted as above on or before the first Wednesday in April, 1879.

Each dissertation must be accompanied by a sealed packet, on which shall be written some device or sentence, and within which shall be enclosed the writer's name and residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

The writer of each dissertation is expected to transmit his communication to the President of the Committee, J. B. S. Jackson, M.D., in a distinct and plain handwriting, *and with the pages bound in book-form*, within the time specified.

Any clue by which the authorship of a dissertation is made known to the committee will debar such dissertation from competition.

Preference will be given to dissertations which exhibit original work.

All unsuccessful dissertations are deposited with the secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

THE HEALTH OF MADEMOISELLE TITIENS.—Very erroneous reports have appeared as to the state of Mademoiselle Titiens since her departure from London. As Mr. Spencer Wells was the operator, it was hastily assumed that he had removed an ovarian tumor, whereas the symptoms were all due to obstructed intestine and chronic peritonitis, with effusion of fluid into the peritoneal cavity. Mr. Wells opened the cavity, removed eighteen pints of fluid, and released the intestine, with immediate relief to the urgent symptoms, and he had the great satisfaction of attending, with Dr. Howell, F.R.C.S., of St. John's Wood, during recovery, which went on without a bad symptom. The wound healed by first intention, and Mademoiselle Titiens had taken two drives before she went to Worthing. The journey there, in a royal-saloon carriage badly coupled, was unusually trying, and for some days there was cause for anxiety, but the last reports are favorable.—*London Lancet.*

CAMPHOR VAPOR BATHS.—These baths are used with asserted very good effects in the Queen's Hospital, Birmingham, for the relief of chronic Bright's disease. They are said to produce very free perspiration, and are given every night in the following manner. The patient is seated upon a cane-bottomed chair, with a large blanket pinned round his neck. Half an ounce of camphor is placed upon a tin plate under the chair and above the flame of a small spirit-lamp, by the heat of which the camphor is slowly vaporized. Dr. Sawyer also employs camphor fumigation in some cases of convalescence from acute or subacute rheumatism, where the action of the skin is defective, and where there remain some pain and stiffness of the joints.—*British Medical Journal.*

MALE WET-NURSES.—The *Journal des Sages-Femmes* has a notice of a German physician in Pomerania who makes a specialty of supplying wet-nurses. He excites the secretion of milk, not only independently of pregnancy, but in men as well as women. An applicant for a wet-nurse is always asked whether a *male* or a *female* is desired. The former is preferred by some families, under the belief that greater vigor is thus imparted to the infants.

HUMAN MILK FOR SALE.—Chinese women sell their milk for about fifty cents per pint. The milking is performed in public, to insure purity. It is highly esteemed as a nourishing food for old people and consumptives.

TETANUS PRODUCED BY A HYPODERMIC INJECTION OF CHLORAL.—Dr. W. G. Hunlis reports (*Transactions of the Bombay Medical Society*) a fatal case of tetanus produced by a hypodermic injection of chloral.

THE SYRACUSE UNIVERSITY requires, in its medical course, attendance upon three years of instruction; the year being made up of two sessions between the first day of October and the last Wednesday of June.

A COTEMPORARY states that coating eggs with linseed oil will preserve them for some months.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JULY 15, 1877, TO JULY 28, 1877, INCLUSIVE.

SWIFT, E., LIEUTENANT-COLONEL AND ASSISTANT MEDICAL PURVEYOR.—Relieved from duty as Medical Director of this Department, to enable him to comply with S. O. 147, c. s., A. G. O. G. O. 6, Department of the Gulf, July 18, 1877.

ALDEN, C. H., MAJOR AND SURGEON.—Telegraphic instructions of 30th ult. to proceed from Fort Townsend, Wyoming Territory, to Lewiston, Idaho Territory, and report at once to the Department Commander in the field, confirmed. S. O. 90, Department of the Columbia, July 6, 1877.

KINSMAN, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Leave of absence extended one month. S. O. 165, Division of the Atlantic, July 26, 1877.

MATTHEWS, W., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to-morrow to Boisé City, Idaho, and join Major Greene's command with the least possible delay. S. O. 88, Division of the Pacific and Department of California, July 17, 1877.

DICKSON, J. M., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for thirty days, on Surgeon's certificate of disability. S. O. 120, Department of the Gulf, July 13, 1877.

BUELL, J. W., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—So much of paragraph 5, S. O. 127. c. s., from these Headquarters, as directs him to accompany Companies D and L, 10th Cavalry, to Fort Clark, is revoked. S. O. 129, Department of Texas, July 16, 1877.

PHILADELPHIA, AUGUST 18, 1877.

ORIGINAL LECTURES.

ASPIRATION IN COMPLICATED CASES OF PLEURAL EFFUSION.

BY WM. PEPPER, M.D.,

Professor of Clinical Medicine in the University of Pennsylvania.

Reported by S. M. Miller, M.D.

IV.—CARDIAC DISEASE WITH PLEURAL EFFUSION.

PLEURAL effusion occurs so frequently in connection with valvular disease of the heart, and adds so seriously to the dangers of that condition, that it is necessary to be constantly on the lookout for its development. From time to time it should be searched for by careful physical exploration, and the appearance in any such case of increased dyspnœa and disturbance of the heart's action should lead us to repeat such examinations. In some instances it does not appear until extensive œdema and ascites have occurred, while in others it may appear and even reach a high degree while there is little or no dropsy elsewhere. In these latter cases especially is the development of pleural effusion apt to be overlooked.

It is easy to understand why pleural effusion should frequently occur in the course of organic heart disease. Sometimes it results from subacute inflammation of the pleura, apparently set up by the extension of morbid action from the heart or pericardium. In rare instances it may be induced by the pressure of an enormously enlarged auricle upon the azygos veins. In the majority of cases, however, it occurs as a result of the general venous stasis, and is then only one manifestation of a general dropsy.

In my own experience, pleural effusion in heart disease is decidedly more frequent on the left than on the right side; possibly because the first two causes above mentioned would naturally tend to produce it chiefly on the left side.

The diagnosis of the effusion is easily made by attention to the ordinary signs. The danger is, as already stated, that the dyspnœa and increased disturbance of the heart's action may be attributed to the extension of the cardiac disease, and no careful examination for pleural effusion be made. It is extremely important that the diagnosis should be made as early as possible, because the existence of pleural effusion adds greatly to the dangers of cardiac disease, interferes much with the action of many of our most valued remedies, and frequently calls for the use of special means of treatment directed to the removal of the effusion.

The following case illustrates strikingly many of the above remarks:

Case VI.—J. J., æt. 53; seen with Dr. T. J. Yarrow. Since early in 1875 his wife had noticed that he was not himself. No rheumatism; evidently an insidious development of cardiac disease. Frequency of urination, but no albuminuria. Symptoms of valvular disease, dyspnœa, palpitation, œdema, cough, made their appearance in the early summer of 1876. He had one or two alarming attacks of cardiac and pulmonary embarrassment. I saw him first on August 10, 1876. There was marked distress; œdema of feet and legs; belly large, probably some little ascites; heart very irregular, indistinct mitral murmur; tongue furred; appetite poor; distress after eating; moderate amount of hydrothorax on left side. His diet was restricted, with rest and occasional mercurials and laxatives. These did great good. Before this treatment, digitalis disagreed markedly with the stomach, but afterwards it was better borne; still, neither in form of infusion, tincture, or powder was it as well borne as usual nor did it do so much good. We got rid of the dropsy of the legs, and after repeated blistering the hydrothorax was diminished and almost disappeared. I saw him again in October of 1876, and he continued moderately comfortable, though with ups and downs, until January, 1877, when after over-exertion he was worse. Again he grew more comfortable, but on January 14, after walking out, he became very ill; intense dyspnœa, cough, and palpitation appeared. He passed a bad night, and was very ill when I saw him next morning. His pulse was 115, and very irregular. There was considerable hydrothorax on the left side. The heart was displaced, the face livid, and the respiration gasping. Paracentesis was immediately performed, and f℥lxv (65) of light-colored serum were drawn off, leaving about two inches of dulness at the base of the chest. The breathing was much relieved, and the respiratory murmur with coarse friction-sounds immediately returned. The heart-sounds became more distinct, and the mitral murmur much louder and audible posteriorly. He was ordered restricted diet, but it was difficult to restrain his appetite. Iodide and acetate of potassium were given. Digitalis and aconite were tried, but without success;

the hydrothorax returned, and on February 15, 1877, he was so ill that it became necessary to perform paracentesis a second time, and f℥lx (60) of clear serum were drawn off. The needle was introduced in the ninth interspace, just outside of the line of the inferior angle of the scapula. Apparently every drop was drawn off, as resonance and good murmur returned down to the very base of the chest. No unfavorable symptom appearing during the operation, the same treatment was continued. Immediately after the operation there was the same relief, but very soon evidences of returning effusion manifested themselves. He was then placed on skimmed milk, f℥iv every three hours, quinine, gr. ii q. q. h., blue mass, gr. iv every week. Under this liquid diet rapid improvement showed itself. The fluid in the chest steadily diminished, and on March 12 it had entirely disappeared. The pulse fell to 76–80, the mitral murmur grew much less harsh and strong. On July 1 he came again under my notice. He was feeling very well indeed; able to walk without fatigue or dyspnœa. Attends to light business, and, although extremely careful, feels stronger and able to accomplish more than for a long time. There was no effusion at all; the mitral regurgitant was still pronounced; the respiratory murmur weak over left lower lobe. Still lives on bread and milk, vegetables and berries. No stimulus is allowed. The œdema has disappeared. Pulse 84–90. Strong pulsation of cervical vessels. Heart-sounds heavy and strong in carotid. Radial pulse fills quickly, is quite large, and does not retract abruptly.

Remarks.—The above case offers a number of points of clinical interest. The value of paracentesis in such an instance does not consist only, or even chiefly, in the vast relief which it affords, but in the fact that by removing a cause of greatly-added dyspnœa and disturbance of circulation it gives time for the operation of remedies and enables them to work more efficiently. It frequently happens that ordinary means for causing absorption of pleural effusion fail when cardiac disease coexists; and when this has proved to be the case, paracentesis should be promptly performed, even for much smaller amounts of effusion than call for it when no heart-complication is present. It is important to note further how much trouble there was in digestion, and how poorly certain remedies acted so long as the marked impediment to pulmonary and hepatic circulation persisted. The dyspepsia which often attends obstructive cardiac disease, and proves one of its most troublesome symptoms, is due chiefly to the extreme congestion of the liver and of the mucous membrane of the stomach. In turn, this condition reacts upon the heart, and the disturbance of its action and the consequent distress and dyspnœa are increased.

In some instances the free use of remedies directed to the heart, such as digitalis, aconite, etc., will, by regulating the central organ, lead to a prompt removal of the various local congestions; but in other cases these remedies, even when freely given, fail to produce any good effect. It has been already remarked that this may be due to the coexistence of more or less pleural effusion. It is equally true that in other cases it is due to gastro-hepatic congestion, with perhaps a disposition to general plethora. It is here especially that rigidly-restricted diet and the occasional use of the deobstruent remedies produce such remarkable results. The diet to be chosen must be one that is not stimulating, that does not furnish too much blood, and yet is sufficiently nourishing. In some cases an almost exclusive vegetable diet does very well. I have obtained most striking results from an exclusive skimmed-milk diet, followed out as in the above case. Its effects are often truly remarkable, both in the feeling of lightness and comfort imparted, in the disappearance of dropsy, and in the improvement in the action of the heart. In such cases of cardiac disease the most valuable of deobstruents is unquestionably a mercurial; and I attach very great importance to an occasional dose of from three to five grains of blue pills, followed after six hours by a saline laxative. Not only does this reduce the general mass of blood, but it acts in a most positive manner to relieve the portal circulation, the congestion of which is at the end of so many troublesome symptoms of obstructive heart-disease.

It is needless to say that while attention is being paid to the points of practice above alluded to, the use of whatever special remedy may be called for by the state of the heart must be steadily pursued. In the present case much better results were obtained from general treatment than from any such special remedy; and, indeed, all of the latter which were tried either disagreed with the stomach, or failed to do good to an unusual degree. The case must be regarded as a most satisfactory illustration of the great relief that can be afforded in cases of obstructive car-

diac disease, even when the symptoms seem most unfavorable and most exceedingly threatening.

ORIGINAL COMMUNICATIONS.

CEREBRAL ABSCESS AND DILATED BRONCHI.

BY J. H. HUTCHINSON, M.D.

Read before the Pathological Society of Philadelphia, April 26, 1877.

THE following history of the case, from which the specimens I present this evening were derived, is drawn up from notes taken at the bedside by Dr. Morris J. Lewis.

H. A. P.; æt. 36; single; moulder; born in Philadelphia; was brought into the surgical ward of the Pennsylvania Hospital on March 6, 1877, having been found a short time previously in the street in an unconscious condition. On admission he was comatose, and paralyzed as to motion and sensation, evincing not the slightest sensation when pricked with a pin. Pulse, 80. Respiration, 20, and stertorous. His breath smelt of alcohol, and, as no marks of injury could be detected, his condition was at first not unnaturally attributed to drunkenness. Later in the day he showed symptoms of improvement, which had so far advanced the next day that he was able to give his name and age. As a careful examination showed he had pneumonia, he was transferred to the medical wards under my care.

I saw the patient for the first time on the 8th, when, in spite of his extreme restlessness, which made the physical examination of his chest extremely difficult, I detected dulness upon the right side below the spine of the scapula, together with subcrepitant râles, bronchial respiration, and increased vocal resonance. None of these signs were, however, so marked as it is usual to have them in the croupous form of pneumonia, and, as the vocal fremitus was also not much increased, I thought it more probable that I had to do with a case of catarrhal pneumonia,—a view which was borne out by the character of the expectoration, which was scanty and tenacious and not stained by blood. On the left side the physical signs indicated the presence of pleurisy with a slight effusion. The heart-sounds were normal. On examination the urine was found to be orange-colored, cloudy, acid in reaction, and to have a specific gravity of 1022. It contained neither albumen nor sugar. The patient's head was drawn very slightly to the left side, but this retraction was so slight, and appeared to pass off so completely upon moving the head, that, notwithstanding the presence of delirium, no further attention was paid to it at the time, it being thought that the delirium was in all probability a consequence of the inflammation within his chest.

A few days after the patient's admission into my ward it was noticed that his breath was horribly offensive, especially after coughing. This, with the fact that at a point in the right interscapular region, one and one-half inches above the inferior angle of the scapula, gurgling was very distinctly heard, made me suspect that gangrene of the lung had set in. The expectoration was found, however, not to resemble at all that which takes place in gangrene, being light in color and free from odor. Gurgling was also heard, but less distinctly, towards the base of the chest on the same side. These signs, therefore, seemed to indicate the existence of dilatation of one or more bronchial tubes. About the same time ægophony was heard upon the left side, but disappeared in the course of a few days. Delirium still continued, but there was no longer paralysis, the patient frequently leaving his bed to wander about the ward, to prevent which mechanical restraint was occasionally necessary. Apparently there was no loss of sensation, and there was certainly no hyperæsthesia of any part of his body; but, as will readily be understood, the examination of the sensory condition of the surface was surrounded with difficulties not easily overcome. He was able to answer simple questions intelligently enough, but could not yet give a connected account of the manner in which his seizure came on.

On the 18th I found him lying in bed with his head drawn to the left side, the left sterno-cleido-mastoid muscle and platysma being firmly contracted, while the muscles at the back of the neck were relaxed. The face was also drawn to the left side, and the tongue protruded to the right. Any attempt to straighten his head gave rise to intense pain, which was distinctly shown by the expression of his face. The right pupil was very small, but reacted perfectly to light. The left eye could not be examined, owing to marked symblepharon, the result of an old injury. An ophthalmoscopic examination, which was made with some difficulty, as the pupil dilated very little under the influence of atropia, revealed slight choking of the disk, with white patches on its nasal side,—probably the remains of old hemorrhages. The patient's mind was also more confused, but there was no paralysis of the body or of the limbs, and no inability to take food, which was of course given to him in the form of milk and beef-tea. He had also recently been taking four ounces of whisky daily.

Up to this time the patient had been taking quinia, opium, and digitalis, but he was now, in view of the threatening cerebral symptoms, placed upon twenty grains of the iodide of potassium three times a day. He was also

ordered an increased amount of stimulus. The physical signs of the disease of his lungs remained unaltered. Under this treatment he slowly improved. At times there was slight twitching of the muscles of the legs, and on the 23d of April I find that "apparent anæsthesia of the right side of the body" is noted, and on the 26th that an eruption somewhat resembling that of urticaria, but differing from this in the color of the wheals, which were red, is said to have taken place. It was entirely unlike that usually caused by the iodide, and disappeared in the course of a few days. On the 1st of April the stiffness of the neck had entirely disappeared, and his mental condition had so far improved that he was able to give some account of himself, but it was still disconnected. On the 9th of April the following facts in his history were obtained from him :

His mother died of some fever. There appears to be no tendency to hereditary disease in his family. When a boy, he had remittent fever. In 1863 he was struck by a splinter, which caused an injury which resulted in the symblepharon already alluded to. About eighteen years ago he contracted gonorrhœa, but he denies ever having had a chancre or any evidences of constitutional syphilis. He has been a pretty hard drinker. In February, while feeling perfectly well, he went to work in a white-lead factory, where he remained only three days. The time of exposure was so short that it is impossible to believe that lead-poisoning can have anything to do with his present condition, especially as we cannot obtain from him an admission that he has ever suffered from colic or obstinate constipation. Moreover, no blue line could be discovered on the gums. About this time an attack of bronchitis occurred, accompanied by very little expectoration. On the morning of March 6, the day of his admission into the Hospital, he felt perfectly well, being entirely free from headache; but while walking in the streets he suddenly became unconscious.

This improvement was of short duration, for on the 13th of April his temperature rose to 103°, and his face was observed to be drawn to the right side. The iodide of potassium, which had been discontinued a few days before, was again ordered, but in larger doses. Unfortunately, its effects were not so beneficial as before, for in a few days all the former symptoms had returned with even greater intensity than at first. It was rather singular, however, that this time the head and face were strongly drawn to the right side. The patient's cough, which had almost entirely disappeared under treatment, has again returned, and with it the former fetor of the breath. The physical signs were still as before, —dulness in percussion below the spine of the scapula on right side, increased vocal fremitus, and resonance. Coarse mucous râles almost amount to gurgling towards the base of the lung, with well-marked gurgling, pectoriloquy, both sonorous and whispering, and occasional ægophony at a point in the interscapular region an inch and a half above the inferior angle of the scapula.

I shall leave to Dr. Longstreth the task of describing the post-mortem examination.

Post-mortem record, by Dr. Morris Longstreth, Pathologist to the hospital.—Autopsy eight hours after death. Rigor mortis marked. Abdominal cavity presented nothing unusual. There was general adhesion of right pleura; on the left side there were adhesions over whole upper lobe, and partially over lower lobe and lung. Pericardium contained a small amount of clear serum; no evidences of inflammation.

Heart.—Left ventricle firmly contracted. Right ventricle relaxed. Right auricle contained fluid blood and fibrinous clots, continuous into the venæ cavæ. Right ventricle contained a little fluid blood and fibrinous clot. Left side of heart nearly empty. The orifices and valves were normal. Weight twelve ounces.

Slight atheroma of aorta.

Lungs.—The anterior parts of both lungs were normal; posterior parts were solid. The right side was more affected than the left. On the *right* side the condition seemed to be due to collapse of the tissue, with a superadded inflammatory trouble; on section, the tissues exuded some blood and serum, not frothy; the surface of the cut section was not granular; the resistance was slightly lessened. On the *left* side, posteriorly, a section gave abundance of bloody serum and blood, somewhat frothy. This side presented much less evidence of inflammatory change.

The *bronchial tubes* in the right lower lobe were found dilated, as well as the main bronchus. The mucous membrane was thickened, red, and thrown into folds.

Spleen normal. Weight, five ounces.

Kidneys were both large, congested. The capsule was more than normally adherent, tearing the surface on removal, and leaving the surface of the organ slightly granular. The appearances were more marked in the right organ than in the left. Right kidney weighed five and a half ounces; left, six ounces.

Liver.—Outline was regular. Its tissue appeared normal. Weight, three pounds nine ounces.

Stomach.—There were marked post-mortem changes; otherwise the organ appeared normal.

Intestines.—There was no special examination carried out; their general appearance was normal.

Head.—Scalp was not congested. Calvaria presented nothing especial.

Membranes.—Dura mater not specially adherent; not congested. It is tightly stretched.

The Pacchionian bodies are conspicuous. The arachnoid on the convexity of anterior lobes was thickened, and of a pinkish color. The vessels of the pia mater were full of fluid blood. The longitudinal sinus was apparently empty.

At the base of brain, the interpeduncular space as far forward as the optic commissure was covered with a layer of pinkish-white lymph, resting beneath the arachnoid. The inflammatory deposit extended outwards into the beginning of the fissure of Sylvius on each side.

In dividing the nerves, etc., at the base, very thick pus escaped, coming, apparently, not from the infundibulum and third ventricle, but from an opening behind and to the right side. The nerve-trunks presented nothing abnormal. The arteries were not atheromatous. The branches of the left middle cerebral were fuller of blood than those of the right, especially the terminals; but no obstruction of the larger branches was discovered.

The floor of the third ventricle was bulging; otherwise there was no distortion of the parts at the base of the brain.

The lateral ventricles were filled with cloudy serum; in some parts, this mixed with pus of the same character as that escaping at base on the removal of the brain. [It is probable that the pus found here was the result of the dissection.] The cavity on both sides was somewhat enlarged, more in the anterior and posterior cornua than in the central part and middle horn; it was especially to be noted in both posterior cornua. The choroid plexus was pale. The ependyma was thickened, especially over the great ganglia. The septum medium was found ruptured, and the parts softened. The under surface of the corpus callosum was markedly softened, and its tissue, even in its depth, showed areas of vascularity or ecchymosis.

The right optic thalamus felt softened; the left had its surface uneven, and part of it felt firmer than the surrounding brain-substance. On section of the right ganglia there was found an area, reaching nearly up to its ventricular surface, and extending towards the base, partly filled with thick pus. It was about the size of a pigeon's egg. The walls of the abscess were of considerable thickness, although not dense. The cavity was somewhat irregular in outline.

A section of the left optic thalamus showed its substance nearly normal, although its deeper parts presented increased vascularity.

The left corpus striatum was normal, whilst the right ganglion was of less firm consistence.

The third ventricle seemed narrowed; its walls were softened, and it contained some purulent matter and serum. Its commissures were intact.

The aqueductus Sylvii was not dilated, and the parts around it presented nothing especial.

The fourth ventricle was dilated, and contained only clouded serum. The markings on its floor were but imperfectly to be recognized.

The pons, medulla oblongata, and cerebellum, as well as the remaining parts of the brain, showed nothing abnormal.

The pineal gland and the pituitary body were examined, and showed nothing unusual.

The posterior segments of both eyes were removed for examination, but the retinæ separated so easily from the choroid that nothing very definite was made out with certainty, either of the condition of the retina or of the head of the optic nerves.

There were some hemorrhagic points to be seen, apparently recent. The best view of the disk was obtained in the left eye, and it seemed that its periphery was elevated, but it could not be said that its outline was irregular, or that there was any thickening of the adjacent portions of the retinal tissues.

The optic trunks on both sides appeared normal, and their sheaths likewise showed no alterations; especially was it noted that no dilatation or abnormal looseness of the external sheath existed at or close to the sclerotic.

I need not say that the diagnosis in this case was one of extreme difficulty. At first the cerebral symptoms were not unnaturally attributed to alcoholism, and even after he came under my care I did not certainly recognize the presence of a more serious lesion than the pneumonia, until the occurrence of spasm of the muscles of the neck. He appeared to be laboring under a low form of inflammation of the lungs,—as in fact the post-mortem examination showed that he was,—which, as we all know, is frequently accompanied by just the kind of delirium that was present in this case. The occurrence of contraction of the muscles of the neck, together with the results of the ophthalmoscopic examination, which were fully confirmed a day or two subsequently by Prof. Wm. F. Norris, left no doubt on my mind of the presence of a grave cerebral disease, although it was not possible to decide of what character this was. I felt sure that there was inflammatory action at the base of the brain, for this was rendered certain by the spasm of the muscles of the neck, but was unable to say what had been the starting-point of this inflammation. It was at first suspected that he had been struck on the head; but there were no marks of external injury, and later, when fully able to give an account of himself, he attached no blame to any one, believing, as indeed is most likely to have been the case, that he had suddenly

become unconscious while walking in the street. Regarding it as possible that the patient might be syphilitic, I placed him upon large doses of the iodide of potassium, and apparently at first with good results.

It would have been easier to explain the occurrence of the abscess which was found in the right optic thalamus, if it had been possible to obtain from the patient or his friends any history of injury to the head; but this does not seem to have taken place, nor were there any bruises such as would be likely to be caused by a severe fall. It is therefore difficult to explain the presence of the abscess in any other way than by supposing that there was some connection between it and the condition of the right lung, it being well known that cerebral abscess may be associated with and apparently dependent upon chronic disease of the lungs. Messrs. Gull and Sutton, in their article on this subject in Reynolds's System of Medicine, have tabulated seventy-six cases of cerebral abscess, and I shall quote what they have to say in regard to this connection. "In two of our cases the morbid appearances were such as to indicate acute changes in the lungs, extending, however, over several weeks. In a case that occurred at St. Bartholomew's Hospital, the lung presented the appearance of acute pneumonia in the third stage; but the symptoms indicated that the disease had been going on about two months and ten days.

"In all the other cases which have come under our notice, the morbid changes in the chest had evidently been going on several months, and even years. In one, there was a large suppurating chronic empyema. In another, there was a large cavity at the apex of the right lung, which was firmly adherent to the chest-walls by a thick layer of indurated tissue. Another patient had had flattening and general contraction of the left chest for years, signs of dilated bronchial tubes and of disease in the left lung."

Huguenin also, in his article on Encephalitis in Ziemssen's Cyclopædia of the Practice of Medicine, refers fully to the connection between abscess of the brain and affections of the lungs, saying that "the lung is the organ from which the infection of the brain is most frequently derived. Probably in most of these cases we have to deal with broken-down thromboses of the veins of the lungs. The affections of the lung which may cause metastatic abscess are:

"1. Bronchiectasis with stagnant and putrid secretion.

"2. Bronchiectasis with consecutive gangrene of the lung.

"3. Circumscribed gangrene of the lung in typhoid. Multiple abscesses of the brain.

"4. Abscess of the lungs.

"5. Tuberculosis. Gangrenous tuberculous cavities.

"6. Putrid bronchitis with consecutive pneumonia and gangrene of the lung.

"7. Chronic pneumonia due to the presence of a piece of bone in a bronchus."

Appended is the temperature record.

Date.		Pulse.	Resp.	Temp.
March 6,	A.M.	72	12	96.5°
	P.M.	73	15	97.5°
" 7,	A.M.	75	19	98.5°
	P.M.	120	30	101°
" 8,	A.M.	110	32	102°
	P.M.	110	28	102.5°
" 9,	A.M.	90	30	101°
	P.M.	94	30	102°
" 10,	A.M.	84	28	101°
	P.M.	90	28	102.5°
" 11,	A.M.	90	28	102°
	P.M.	82	26	102.5°
" 12,	A.M.	86	24	101.5°
	P.M.	80	24	101.5°
" 13,	A.M.	90	24	103.5°
	P.M.	100	26	101.5°
" 14,	A.M.	100	24	102°
	P.M.	96	24	100°
" 15,	A.M.	96	24	101°
	P.M.	104	26	103°
" 16,	A.M	90	24	100°
	P.M.	84	30	101.5°
" 17,	A.M.	86	30	100°
	P.M.	100	30	100°
" 18,	A.M.	100	24	100°
	P.M.	96	28	100°
" 19,	A.M.	130	32	103.5°
	P.M.	130	32	100.5°
" 20,	A.M.	100	38	99°
	P.M.	110	28	102°
" 21,	A.M.	100	26	98°
	P.M.	100	26	99°
" 22,	A.M.	106	26	100°
	P.M.	100	26	100°
" 23,	A.M.	110	24	99.5°
	P.M.	120	28	102°
" 24,	A.M.	100	36	99°
	P.M.	110	30	100.5°
" 25,	A.M.	100	24	99.5°
	P.M.	100	24	102°
" 26,	A.M.	90	24	99°
	P.M.	130	28	102°
" 27,	A.M.			
	P.M.	130	28	102.5°
" 28,	A.M.	110	26	100°

Date.	Pulse.	Resp.	Temp.
March 28, P.M.	100	28	101°
" 29, A.M.	110	26	100°
P.M.	110	28	99°
" 30, A.M.	100	26	98.5°
P.M.	110	26	101°
" 31, A.M.	110	26	99°
P.M.	110	26	99.5°
April 1, A.M.	100	26	98°
P.M.	100	26	98.5°
" 2, A.M.	80	24	98°
P.M.	100	24	99°
" 3, A.M.	74	24	97.5°
P.M.	96	24	98.5°
" 4, A.M.	90	24	98°
P.M.	80	24	98°
" 5, A.M.	96	24	98.5°
P.M.	96	24	97.5°
" 6, A.M.	94	20	98°
P.M.	96	24	98.5°
" 7, A.M.	100	24	100.5°
P.M.	100	24	100.5°
" 8, A.M.	90	24	98.5°
P.M.	100	24	99°
" 9, A.M.	100	24	98°
P.M.	100	24	98.5°
" 10, A.M.	100	24	98°
P.M.	84	24	99°
" 11, A.M.	80	24	98°
P.M.	100	22	100°
" 12, A.M.	84	20	98°
P.M.	94	28	101.5°
" 13, A.M.	90	24	101.5°
P.M.	100	24	103°
" 14, A.M.	94	24	102°
P.M.	100	24	101.5°
" 15, A.M.	94	24	102°
P.M.	104	24	101.5°
" 16, A.M.	100	24	102°
P.M.	90	24	101.5°
" 17, A.M.	90	24	101.5°
P.M.	90	24	101.5°
" 18, A.M.	80	24	100.5°
P.M.	84	26	101.5°
" 19, A.M.	136	20	103.5°
Died.			

TWO CASES IN WHICH THE URINE CONTAINED A FUNGUS RESEMBLING SARCINA VENTRICULI.

BY N. G. MACOMBER, M.D.

THESE cases, on account of their presumed rarity, are reported rather as curiosities than for any practical utility likely to arise from their consideration.

Case I.—Charles A. had suffered for many years from chronic dementia. He first came under my observation in 1872, since which he has been troubled with a frequent and urgent desire to urinate, some days going to the water-closet every fifteen or twenty minutes during the day, on some other days not more frequently than once an hour. He also has to arise many times during the night. He is never troubled with constipation, but sometimes with a mild diarrhœa. He says he has a pain, or uncomfortable sensation, in the lower portion of his abdomen, but none in his back. His usual position when sitting is with his forearms folded across his groins and his body bowed forward upon them so as to make firm impression upon the abdominal region. When standing or walking, he also bows forward (although he can stand erect), and usually carries one or both hands within the waistband of his pantaloons, making pressure over the hypogastric region. In bed, he lies with limbs flexed and spine curved. His general health is tolerably good for a man of his age, which is now 68 years. His appetite is uniformly good, with no peculiarity in his desire for fluids, and no evidences of dyspepsia.

I first examined his urine October 7, 1875. My record is as follows:

October 7, 1875.—Color pale yellow, slightly turbid. Dense whitish deposit of considerable bulk. Microscope shows a few envelope crystals of oxalate of lime, a few tube-casts, a great abundance of epithelium leucocytes, and blocks of sarcina ventriculi. Sp. gr. 1012. Reaction strongly acid. Heat and nitric acid detect no albumen. On the application of heat in Trommer's test, the light-blue color of the solution changes to a bright straw-yellow, but no precipitate appears. Several other examinations agreed with the above.

October 22.—Sp. gr. 1012. Reaction feebly alkaline. Microscope shows as above noted, with a few large prismatic crystals of triple phosphates. This specimen had been standing four or five hours. The odor of the urine is peculiar, rather pleasant, suggesting, but different from, that of brewer's yeast. I have never met with such an odor, save in the case detailed subsequently.

Case II.—Wm. H., suffering from general paresis, came under my care. Owing to the mental condition of the patient, it is impossible to say whether he does or does not suffer from cystic uneasiness or pain. Occasionally, perhaps once a month on an average, he has, without apparent cause, become unable to void his urine without the use of the catheter. There is no stricture or other obstacle to the passage of the instrument, except a nervous spasm of the neck of the bladder, which always gives way in a few seconds before a very gentle pressure. The bladder contracts very sluggishly, and pressure upon the abdominal region is necessary to hasten the escape of its contents.

He appeared to suffer no inconvenience when on one occasion his condition was not recognized for twenty-four hours, when he had an accumulation of over thirty ounces in the bladder. His condition is usually discovered by the distention of the vesical region.

The urine when drawn by the catheter has appeared rather high-colored, but perfectly

transparent, and possessed of an unusual odor, as in previous case.

I first examined the urine of this patient October 9, 1875, and my note reads as follows: Color reddish-yellow, perfectly transparent; dense white deposit of considerable bulk. Microscope shows envelope crystals or octahedra of oxalate of lime, epithelium, and sarcina ventriculi (?) Specific gr. 1018; reaction acid; no albumen and no sugar.

October 25, 1875.—A specimen, after standing five days in an uncorked bottle in a room having a temperature between 70° and 80° Fahrenheit, exhibited a cloudiness throughout, with a whitish scum on the surface. In addition to the oxalate of lime, epithelium, and sarcina, as above noted, the microscope detected a great abundance of fungous branches and spores, resembling those of torula cerevisiæ, together with immense numbers of very lively vibriones and bacteria.

The specimen contained *no sugar*, was still strongly acid, and had no odor of putrefactive change.

Remarks. — The point of interest in these two cases is the presence of the objects which I supposed to be sarcina ventriculi. These objects apparently consisted of cells, sometimes occurring singly, but usually collected into squares or cubes, or modifications of these figures. These cells possess a refractive power which makes the definition of their margins unsatisfactory and the determination of their exact form difficult.

From the careful examination of a few of unusual size, I came to the conclusion that the single cell was intermediate in form between a cube and a globe, shaped like a "doctored die,"—a cube with the corners rounded off.

A very frequent arrangement of these cells was that in which four appeared grouped in the form of a square. Sometimes two additional cells changed the square into a parallelogram,—three cells long by two wide. Two more sometimes lengthened the parallelogram into one four by two. Sometimes four of the squares were placed together, making a secondary square, measuring four cells each way. These regular forms were so frequently modified by additions or deficiencies, by variations in the size of the cells united together, and by a tendency to separation in some part of the figure, that a near approach to symmetry was the exception rather than the rule. Sometimes the cells seemed to have been broken up and merely clustered together, without any attempt at definite arrangement. In color the cells presented a very slight yellowish tinge, somewhat like the color of red blood disks when tolerably free from hæmatin and viewed singly by transmitted light. The larger ones seemed to have a very slight greenish shade added to the yellow.

When viewed with a certain adjustment of focus, each cell appeared as a bright spot separated from its fellows by black lines, which in the regular figures crossed each other at right angles. With a slight change of focus the largest cells showed a cross dividing the bright spot into four, which probably indicated a tendency to propagate by subdivision of the cells.

In size the cells varied very considerably. The average diameter was not more than $\frac{1}{6500}$ or $\frac{1}{7000}$ in., but many were as small as $\frac{1}{10000}$ or $\frac{1}{12000}$ in., and some were as large as $\frac{1}{1000}$ in.

Some of the blocks appeared to be in movement. The motion, when seen, was usually of two kinds,—one of progression and a vibratory rolling from side to side, back and forward, about an axis in the line of progression.

Sometimes the block, instead of slightly rolling backward and forward, rotated completely on its axis, presenting successively what would be the lateral and posterior views if the one first seen be regarded as the anterior aspect.

The lateral view showed that the block was a solid figure having a depth equal to its breadth.

Specimens of urine were examined by Drs. J. G. Hunt, J. G. Richardson, Jas. Tyson, and D. F. Willard. These gentlemen agreed that these organisms bore a strong resemblance to sarcina ventriculi as seen in vomited matter; but as neither of them had ever met with that fungus in the urine, they were not sufficiently familiar with its appearance under such circumstances to assert its specific identity.

From the careful counting of the cells visible in a number of fields on different slides and from different specimens of W. H.'s urine, I found two hundred and fifty to be an average number for a field. By means of the lateral stage movement I found the diameter of the thin glass cover to be equal to the sum of the diameters of twenty-two fields.

Let 1 represent the diameter of a field, then 22 will represent the diameter of the thin glass cover. Since circles are to each

other as the squares of their diameters, the cover would contain 484 fields. $250 \times 484 = 121{,}000$, the number of cells on a single slide.

One-quarter of a minim of fluid is sufficient to form a film beneath a thin glass cover three-quarters of an inch in diameter.

W. H. passed, on an average, from forty to fifty fluidounces of urine per diem, yielding about four fluidounces of sediment.

$4 \times 4 \times 480 = 7680$ quarter minims of sediment, or sufficient to supply 7680 slides. $121{,}000 \times 7680 = 929{,}280{,}000$ for the number of cells discharged each twenty-four hours. This number multiplied by 365 gives as the number discharged in one year, 266,187,200,000!

$929{,}280{,}000 \div 24 = 38{,}720{,}000$, the number discharged for each hour. $38{,}720{,}000 \div 60 = 645{,}333$, the number discharged for each minute.

In counting the cells in a field, only such as were visible were counted. If all the blocks were three or four cells deep, as were some which by rotation displayed a lateral view, then the number actually present in the field would be three or four times as great as the number visible.

The mental condition of these patients is such that subjective symptoms are not available for throwing any light on the pathology of the affection. Objectively, however, these cases present some points of contrast from which negative inferences may be drawn.

In one, the decubitus as well as the manner of sitting and standing indicates vesical discomfort relieved by pressure; in the other, no such symptoms exist. In the latter, however, sensation is much obtunded by cerebral disease. In one, there is incontinence of urine; in the other, retention. The presence of the fungus, therefore, does not necessarily cause either, and probably has no connection with either, except as a coincidence.

The urine of one undergoes rapid change, becoming ammoniacal and fetid in three or four hours. Several specimens passed by the other were kept in a room at an average temperature of over 70° four or five weeks, without losing their acid reaction or presenting the slightest odor of putridity. Therefore the presence of the fungus does not necessarily either cause or prevent putrefactive change in the urine after it is voided.

The cases agree in the peculiar fermentative odor of the freshly-passed urine. I have not met with the report of any case of a similar fungus in the urine, and do not know whether this is a constant symptom or only a coincidence in these cases.

Both cases showed the constant presence together of octahedra of oxalate of lime with the fungous cells, which Dr. Tyson informs me has been observed in previous cases.

The cells themselves were singularly stable and unchanging in their appearance. Specimens of urine from both cases were kept for weeks and frequently examined, and in no instance was any change in their condition apparent, except a tendency to a breaking up of the larger groups. Possibly, as in the case of epithelial cells, they only escape from the body after a loss of their vitality. If so, their motion might have been deceptive in its character, not automatic, but due to currents in the film of urine produced by evaporation at the margin of the cover, or by other causes.

The organisms were soaked twenty-four hours in acetic acid of commercial strength without undergoing any apparent change. They were boiled actively in the same ten minutes, with a like negative result. Liquor potassæ, grs. xxx ad ʒi, both cold and boiling, failed to produce a perceptible effect. These organisms were not, however, absolutely indestructible, for when macerated for two weeks in the liquor potassæ they were disorganized, and the resulting débris appeared to be amorphous. They were also destroyed by the blow-pipe flame.

NOTE IN REGARD TO THE CONTENTS OF THE ARTICLE ON JABORANDI, IN LANGGARD'S "DICCIONARIO DE MEDICINA DOMESTICA."

BY FRANCIS V. GREENE, M.D., U.S.N.

ON the 20th of June last, Dr. A. Hutchins, President of the Medical Society of the County of Kings, New York, read a paper on jaborandi before the State Medical Society, which has since been published in the Proceedings of the Medical Society of the County of Kings (July, p. 136). At the bottom of the first page will be found the following note: "Jaborandi has been employed for a long time in South America, and received its first notice, under the various names of jabo-

randi, jaquarandy, jamquarandi, from Dr. T. J. H. Langgard, in his Diccionario de Medicina Domestica, Rio Janeiro, 1865." This sentence Dr. Hutchins found at the beginning of an article on jaborandi in the *Philadelphia Medical Times* of June 26, 1875, p. 616, and transferred verbatim (with the exception of changing the words "this drug" into "jaborandi") to his own paper without indicating in any way that it was not original.

As this second appearance of the above statement may have a tendency to lead many, who will be unable to refer to the work in question, to believe that it presents important information in regard to the Pilocarpus pennatifolius, I beg leave to state that it fails to do anything of the kind. I have not had the opportunity of consulting the edition of 1865; but as during the Centennial Exhibition, through the kindness of Dr. Da Motta, the Brazilian Commissioner in charge of the educational department, I was afforded every facility for examining and making extracts from that of 1873, and as it is not at all probable that anything of interest has been omitted in regard to jaborandi in this the latest edition, I present a translation of the article on this subject as it appears in Dr. Langgard's work of the last-mentioned date:

"Jaborandy, Jaguarandy, Jaborandi, Iamborandy, Iaguarandi, Ottonia anisum, Sprengl (*Serronia Jaborandi*, Guill.; *Piper Jaborandi*, Velloso; *Ottonia Jaborandi*, Kunth). Tetrandria tetragynia, L., Piperaceæ, Rich and Kunth.—A Brazilian shrub, with sarmentous, cylindrical, knotty, dichotomous branches, puberulent when young, glabrous when older, leaves alternate, inserted into the nodosities, oblong-oval, almost always acuminate, not quite equilateral, entire, scarcely undulate, and pinnately veined; flowers hermaphrodite, apetalous, disposed in aments or spikes of innumerable flowers, which finally, by the lengthening of the pedicels, become pseudo-racemes; they are opposite the leaves; the fruit a unilocular, monospermous, oval akene, with four deep grooves, encircled at the base by the remains of the filaments, and surmounted by the stigmas. The flowers, and principally the fruit, exhale a strong aromatic odor (De Lesert., Icon. Select. Plant., vol. iii. page 54, plate 90). When the root is chewed, it produces a sensation of rapid tremor in the tongue, and, in the lips principally, a feeling of warmth during expiration, and of cold on inspiring the air. An abundant flow of saliva takes place at the same time. The other plants, almost all of which belong to the Piperaceæ, whose roots possess organoleptic properties similar to the preceding, and which are called by the Indians *iaguarandy*, *ianguarandin*, etc., likewise *iandy*, *nhandy*, and *nhandu*, are the *Piper aduneum*, L., *P. nodulosum*, Link (*P. geniculatum*, W., *Enckia glaucescens*, Kth.), *P. unguiculatum*, Rand (*P. glaucescens*, Jacq.), *P. citrifolium*, Lam. (*P. rugosum*, Vahl), and others. The roots of all these plants are acrid and aromatic, stimulating to the lymphatic system, increase the flow of urine, and produce salivation. Internally, the roots are used in the same cases as the pariparoba, but in smaller doses, as they contain larger quantities of the acrid and stimulating principles. Externally, they are used, bruised, in cases of snake-bites; in the form of a tincture (one part of the root in eight of rectified alcohol), they are used for rubbing paralyzed limbs, and are recommended to be chewed to relieve toothache. The fruit or small aments of the *P. aduneum* and other plants have an acrid, spicy taste, possess digestive, incisive, attenuant, resolvent, and anti-odontalgic properties, and are specially used in blennorrhœas in the place of cubebs. The *Monnieria trifolia*, Lofl., a plant belonging to the Rutaceæ, which is cultivated in the provinces near the equator, possesses an aromatic root, and produces the same sensation in the mouth as jaborandy, and for this reason has been called jaborandy. It is likewise styled *alfavaca de cobra*, and is reputed to be diaphoretic, diuretic, expectorant, alexipharmic, and sialogogue. (Dr. de Martius.) The root is the part used." (Diccionario de Medicina Domestica é Popular, por Theodoro J. H. Langgard, Rio de Janeiro, 1873, tom. ii. p. 367.)

Such are the contents of the article on jaborandi in Dr. Langgard's work, an article replete with valuable information in regard to the Serronia anisum, instructive as concerns the other piperaceous plants to which the term jaborandi has been applied, and comprehensive in pointing out that a rutaceous plant, the three-leaved Monnieria, was known by the same appellation, but entirely silent as regards a member of the rue family with an impari-

pinnate leaf, possessing powerful diaphoretic and sialogogue properties, to which the generic term *jaborandi* had been applied.

I feel confident that Dr. Langgard has fallen into error in stating that the *Monnieria trifolia* is the *alfavaca de cobra*. Among the specimens of Brazilian medicinal plants kindly presented to me at the close of the Centennial Exhibition by the commissioners from Brazil, was a very fine specimen of the leaves of the Pilocarpus pennatifolius, labelled jaborandi, but designated botanically as the *Monnieria trifolia*. The confounding of the two plants in this manner, which I find is, or at least has been, commonly the case in Brazil, readily explains how it has happened that the term *alfavaca de cobra*, which properly belongs to the pilocarpus, has been incorrectly applied to the Monnieria.

A CASE OF HÆMATOMA OF THE ANTERIOR WALL OF THE VAGINA.

BY J. MONRO MURRAY, M.D.,
Resident Physician, Philadelphia Hospital.

MARY L., æt. 17; born in Philadelphia; occupation, female gymnast; was admitted to the wards of the Philadelphia Hospital, September 1, 1876.

She then gave the following history. While performing on a trapeze, on which she was swinging by her feet, she failed to catch a rope, and in consequence was precipitated a distance of thirty feet to the stage. She alighted on her feet, but was rendered unconscious by the shock for about ten minutes. On regaining her senses she suffered from great pain in the side, and noticed that her abdomen was considerably swollen. These symptoms abating, she was soon able to resume her occupation. One month after the fall, which occurred about the 1st of August, while using an injection, she noticed a round ball in her vagina. This did not give her much pain, except when she had sexual intercourse. She menstruated at thirteen years of age, and has never been regular since. Her menstrual flow is always scanty.

Upon admission to the hospital, the patient stated that she had been treated outside by a physician for anteversion of the uterus. At this time she complained of severe and continuous pain in the hypogastric region, with a sense of weight "as if her womb was going to drop out." She also had frequent desire for micturition, during and after which act she suffered considerable pain.

Upon a digital examination a round, pyriform swelling was found in the anterior wall of the vagina, which pressed up the cervix of the uterus so that it could not be felt by the exploring finger. After anæsthization a large Fergusson's speculum was introduced into the vagina, and the os was then found high up, freely movable, and pushed posteriorly by the tumor. The sound entered the uterus for two and one-quarter inches, and was slightly anteflexed. There were no peri-uterine adhesions, as was shown by the mobility of the fundus.

The speculum being withdrawn, in order to further define the tumor a catheter was introduced into the urethra, which was found to be greatly elongated. By pressing on the anterior wall with the finger in the vagina, the tumor was found to be one and one-half inches in thickness, and about two and one-half inches in length, and extending laterally one and one-half inches; pyriform in shape, with its base directed upward, beginning about two and one-half inches from the vulvar opening, and reaching above the junction of the cervix with the vagina.

A hypodermic needle being introduced into the tumor, a small quantity of blood escaped. The needle was then withdrawn and the largest-sized trocar of Dieulafoy's aspirator thrust into the swelling, and eight ounces of dark, uncoagulable blood were drawn off, causing a marked decrease in the size of the tumor. The patient was then given a half-grain of morphia, and the vagina was kept thoroughly cleansed by injections of carbolized water. She complained of no special pain except slight tenderness in the vagina, and made a rapid recovery.

The preceding case is certainly an interesting one. The rarity of the occurrence of this trouble is proved by the scanty references to it in works on gynæcology.

TRANSLATIONS.

LOCAL TREATMENT OF CHRONIC CATARRH OF THE BLADDER, AFFECTIONS OF THE URETHRA, ETC.—Schüller (*Centralbl. f. Chirurgie*, 1877, No. 22; from *Deutsche Med. Wochens.*) has found by experiments upon dogs that by artificially preventing the bladder from emptying itself the reaction of the urine is changed, and the initial symptoms of cystic catarrh are produced. Whether the change in reaction (neutral and alkaline) is due to the primary effect of accumulating bacteria, or to decomposition of the mucous and epithelial cells present, or to a ferment independent of either of these, the author leaves undecided. Schüller caused the retention of the urine by limiting the calibre of the urethra by

means of a carbolized ligature. No catheter was introduced at any time. As a rule, the urine, which was strongly acid before the experiment, became neutral, cloudy, and even alkaline, within two days after the stricture was made. As regards the therapeutics of chronic catarrh of the bladder, Schüller naturally bases the treatment upon the result of his experiments. In the first place, the bladder should be kept empty and thoroughly cleansed, either by means of the usual catheter, or by the use of a funnel with caoutchouc tube terminating in a conical canula of horn. S. uses a 1 to 1½ per cent. solution of carbolic acid, a 0.3 to 0.5 per cent. solution of salicylic acid, a 5 per. cent. solution of chloride of sodium, a 0.05 to 0.2 per cent. solution of permanganate of potassium, a 0.5 to 1 per cent. solution of nitrate of silver, or a 1 to 2 per cent. solution of chloride of zinc (of the last two 5 to 10 grammes may be thrown into the bladder after cleansing). Salicylic acid, given internally to the extent of 6–10–12 grammes daily continued for fourteen days, had no effect upon the alkaline reaction of the urine. As regards the differential indications for the local use of these various remedies, S. comes to the conclusion that carbolic acid and the permanganate of potassium are particularly indicated in catarrh of the bladder when there is considerable decomposition; while salicylic acid is most useful where there is profuse purulent catarrh. When a thick, tough, slimy, profuse precipitate exists, the chloride of sodium is demanded for cleansing purposes. In case of persistent profuse purulent secretion, Schüller advises the alternate use of 1 per cent. solution of nitrate of silver, or 2 per cent. solution of chloride of zinc, as most appropriate. In diphtheria of the bladder, stronger injections of carbolic acid are surprisingly effective. Schüller divides the various sorts of catarrh of the bladder as follows: 1, chronic catarrh, the result of stricture; 2, as a result of transmitted inflammation; 3. in hypertrophy of the prostate; 4, in paralysis of the bladder; 5, the chronic vesical catarrh of women. In very stubborn catarrh of the bladder (*e.g.*, that due to villous cancer), S. recommends continual drainage of this viscus,—a caoutchouc drainage-tube leading from the opening of puncture through the right or left ischio-rectal fossa to open into the rectum near the anus. In bleeding from that part of the urethra which lies within the pelvis, particularly from the prostate, tamponning the rectal "pocket" is advisable, by which the urethra and prostate are compressed against the symphysis. The instrument of Stearns for dilating the urethra is that which is preferred by Schüller. In puncture of the bladder, Hueter, according to S., usually makes an incision above the symphysis pubis in the median line through the skin and subcutaneous adipose tissue, and then thrusts a Deschamps trocar through the opening thus made into the bladder. The above operation is particularly to be recommended in fat or œdematous persons. x.

Epileptic Attacks prevented by the Hypodermic Injection of Apomorphia. —E. Vallender (*Berliner Klin. Wochens.*, April 2, 1877, p. 185) has employed apomorphia in the following cases with favorable results. A young country girl, 20 years of age, was suddenly attacked by epilepsy, which soon became so severe that the invasions followed each other almost continuously, day and night, for weeks at a time. Sometimes ten to fifteen occurred in twenty-four hours. The aura which always preceded the attacks consisted in a feeling of heat in the gastric region, with considerable pain. The feeling spread to other portions of the body, the attack coming on after a few minutes, with cries, loss of consciousness, and clonic spasms. When the patient came under Dr. V.'s care a hypodermic injection of apomorphia solution (containing four milligrammes—one-sixteenth grain—of the alkaloid) was administered at the beginning of the aura, which checked the attack so far that simply syncope ensued. Subsequently two milligrammes only of apomorphia were injected, in order to avoid the production of vomiting. In a few weeks the number of the attacks was greatly diminished, as well as their severity. When the administration of the apomorphia was suspended, however, the attacks recurred. Finally, after some months' treatment, the patient was discharged, not having had an attack for eight weeks. Several other patients were treated by Dr. Vallender in a similar manner with equal success, and he feels great confidence in the efficacy of the remedy. The fact that the aura in the case mentioned began in the gastric region would

seem to point to implication of the vagus, and would account, perhaps, for the especially good effect of apomorphia. In other cases, however, where the aura had its origin in other localities, apomorphia worked equally well. One thing is requisite in the use of this remedy, and that is prompt application when the aura is first felt. When for any reason the hypodermic injection cannot be promptly made, or when the aura comes too close to the attack to give time for the injection, of course this treatment cannot be expected to succeed. x.

Influence of Drinking-Water on the Biliary Secretion.—I. Zawilski (*Centralbl. f. Chir.*, 1867, No. 21) has undertaken certain experiments with the view of ascertaining what effect taking water into the stomach has upon the secretion of bile. He placed glass canulæ in the ductus choledochus of rabbits, closed the intestine, sewed the canula in the abdominal wound, and either collected the bile secreted drop by drop in vessels, in order to estimate the entire amount of bilious fluid in a certain interval, together with its dry residue and the amount of its constituents, organic and inorganic, or he allowed the bile to collect in a vertical glass tube, in order to measure the force of its secretion. Researches were instituted upon animals simply tied, in comparison with those in whom a wound had been made in the œsophagus, through which, by means of a catheter, ordinary water, carbonic acid, oxygen, or ozonized water, in small quantities, were introduced. Z.'s results were as follows:

1. In animals who have fasted for fifteen hours a decided diminution in the secretion of bile is noticeable. At the same time the percentage of fixed substances diminishes, the bile being more watery.

2. Water, when absorbed from the stomach, increases immediately the secretion of bile, while at the same time the quantity of solids is augmented; that is, a larger quantity of concentrated bile is poured out. The amount of gas contained in the water is a matter of indifference, provided the gases do not distend the stomach and thus act mechanically as a hindrance to the exit of the bile. The secretion of bile is so much the more abundant the longer the water is supplied. Frequent and small amounts of water exercise the most favorable influence upon the biliary secretion. By the administration of water not only is the quantity of bile increased, but the pressure under which it is secreted is rendered greater, so that obstacles which under ordinary circumstances would hinder the flow of this fluid are overcome. x.

Muscles of the Cutaneous Glands.—Hesse (*Centralbl. f. Med.*, 1877, p. 186; from *Zeitschr. f. Anat. u. Entwickl.*) states that the musculus arrector pili forms a flat, concave, looped muscular band, rises from three or four hair-follicles by the same number of roots, to end again in several processes. Its principal effect in contraction is as an *expressor sebi*. In the axillary glands the muscle-cells are occasionally observed to lie between the epithelium of the gland and a strongly refractive homogeneous layer which divides the gland wall from the connective tissue, and which may be regarded as a membrana propria. On the adult scalp the formation of new hairs and sebaceous glands results exactly in the same manner as in the embryo, by solid epithelial processes rising from the lower layers of the rete, without connection with the root-sheath of an old hair. x.

Acute Poisoning by Salicylate of Sodium.—F. Petersen (*Centralbl. f. Med.*, 1877, p. 336; from *Deutsch. Med. Wochens.*) observed the following case. A patient who had taken by mistake twenty-two grammes (5½ drachms) of salicylate of sodium within six hours showed symptoms of poisoning as follows. In addition to severe headache, tinnitus aurium, dimness of vision, profuse perspiration, etc., decided disturbance of the sensorium was observed, with painful hallucinations, mydriasis, and strabismus divergens, hoarseness, and thickness of speech, many words not being expressed. After several days the symptoms subsided, but returned again, though in a less marked degree, and transitorily, after the injection subcutaneously of only 0.02 grm. (⅓ gr.) of salicylic acid. x.

Fistula Ani in Tuberculous Persons.—Gosselin (*Centralbl. f. Chir.*, 1877, p. 348; from *Gaz. des Hôp.*) is of the opinion that in emaciated phthisical patients only a certain variety of anal fistulæ should be operated upon, those distinguished by their extreme painfulness, and which are usually very short and surrounded by callosities. Frequently hemorrhoidal tumors are the seat of pain which is ascribed by the patient to the fistula. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, AUGUST 18, 1877.

EDITORIAL.

MEDICAL LEGISLATION.

THE subject of medical education has been so often discussed that it seems almost useless to consider it further. The only hope of improvement is, however, to be found in a relentless reiteration which may finally wear away the rocky obstructions of self-interest, excessive conservatism, and indifference. Moreover, there are some things yet to be said connectedly in regard to the remedies for the existing state of affairs. Of the various proposed remedies, only two seem to possess value. These are the endowment of medical colleges and the appointment of governmental examining boards.

Medical schools ought to be endowed, and no doubt would have been so if they had originally been put upon the same footing as other higher institutions of learning; but as they were constituted marts for the selling of the right to practise an honorable and lucrative profession, it is not strange that philanthropy has owned no kinship in them. If we alter the character of medical schools and make the public understand what such institutions should be, and that they are incapable of self-support if properly conducted, without doubt the famed liberality of American men of wealth will assert itself, and endowments will flow into the more noted institutions. Unfortunately, however, even if this were to happen, the present evil would not be destroyed. Endowment is not a specific cure: it is at most only a palliative.

New charters for medical schools can be obtained from our various Legislatures with the utmost ease. Moreover, fifty millions of dollars would not fully endow the chartered medical colleges now existing in the United States; whilst five millions would properly support all of those really demanded by the interests of the country.

Let private liberality be what it may, it is plain that under the existing system there will always be a residuum of medical colleges which will pander to the *δι πολλοι* and sell the right to poison and slay at the lowest possible price, in time, labor, and money.

The correction of the existing state of affairs by legal enactment has been very widely discussed, and in some States has passed from the stage of discussion to that of experimentation. The sum of all that has been written seems to show that there are difficulties in the way of legislation which can only be tested by trial, but that the possible cure for the present evils lies solely in such legislation, or, in other words, the conclusion of the whole matter is, if the difficulties in the way of legal regulations prove insuperable, the problem belongs to the same class as squaring the circle, and it is a waste of time even to discuss its solution.

Individual schools may advance their own standards; but, so far as concerns the general medical public, we must try legislation or let the matter drift; and, as no permanent harm can come from the trial, it is the part of wisdom not to throw obstacles in the way of such legislation. The attempt should be made to guide, not to obstruct, the enactment of laws.

It is, however, necessary to study carefully the objections that have been or may plausibly be raised; forewarned, forearmed; and it is possible that by a wise framing of the acts the anticipated troubles may be avoided.

All the objections brought forward have their origin in one of three sources:

1. The multiplicity of our States. 2. The so-called sects of medicine. 3. The tendency of American politicians to take

control of and debauch everything that comes within their power.

Let us examine these in order.

In the early stages of legislation much inconvenience will probably arise out of the relations of States. Suppose, for instance, that New Jersey had a State law and Pennsylvania had none, or that both States having a law no recognition of the laws of other States was included in either. A Philadelphia physician of middle age, wishing to settle on the other side of the Delaware, might be forced to pass an examination before a board of his juniors; or, what is more serious, an eminent surgeon or physician called in consultation from Philadelphia to Camden, *i.e.*, from one State to another, might find legal difficulties in his way. Such inconveniences as these might, however, be readily prevented by the insertion of a clause allowing consultations with physicians of other States without registration or licensing, and permitting examining boards to grant licenses to those who had passed the boards of other States, or who had been ten years in practice in other States.

Many, if not all, of the inconveniences of the class now under consideration would be prevented by a uniformity of law throughout the States, and a general recognition by law of the laws of other States.

Such a conception is no Utopia. It is entirely within our reach.

Let the American Medical Association draft, through a committee, a well-considered bill, and let the securing of its passage by the various Legislatures be urgently recommended to the State societies, and all future legislation will probably be guided by it.

To sum up: The difficulties to legislation arising out of the multiplicity of States are to be overcome by a uniformity of law,—the model to be prepared under the auspices of the American Medical Association.

It is much more difficult to overcome the obstacles which arise out of the existence of the so-called sects of medicine. The difficulties are, however, intrinsic to our own profession, and are really founded chiefly upon matters of sentiment, so that all that is needed is to bring about a unanimity of feeling in the profession itself.

The practical legislator rarely troubles himself about what ought to be: he deals with what is. The regular profession of medicine cleaves to what ought to be, and even refuses to see what is. It is very loath to recognize the existence of homœopathy and other irregular schools of medicine, although it daily feels their presence in what is usually considered the most sensitive organ of the human microcosm, namely, the pocket.

It is not necessary here to denounce the folly and fraud of the outlying methods of practice and of their votaries. Still, these pests do exist, and the recognition of such existence is not incompatible with an unswerving testimony as to the character of such methods and such practitioners. If the exigencies of travel should force a man to ride in the same car or sit at the same table-d'hôte, or perhaps sleep in the same bed, with a thief, a forger, or a murderer, must he go back to his family a thief, forger, or manslayer?

It is perfectly conceivable, nay, in Canada it exists as a reality, that a body of the regular profession may meet upon a public board with homœopaths or eclectics, and yet, when off duty, refuse to have social or scientific intercourse with them or to recognize them as other than blinded, or in most cases dishonest, followers of a false prophet. Indeed, outside of Canada, in these United States, in legislative halls, in school boards, in managements of various institutions, regular and irregular physicians co-exist.

These do not seem to be objections so grave as to be *prima facie* cause of rejecting a law which should require the regular and irregular physicians of every county, senatorial district, or State, as might be deemed

wisest, to elect a council which should appoint examiners in proportion to the numbers of the various so-called sects of medicine.

A similar plan has, in Canada, greatly repressed quackery. The contrary to this has been asserted, but it seems to be a mistake. The Canadian medical press is unanimous in its report, and during the Centennial the editor of the *Times* made very extensive and thorough inquiry among the numerous Canadian representatives of the profession who visited Philadelphia. All agreed that the number of applicants presenting themselves before the mixed board who choose homœopathy is a vanishing quantity. So true is this that the homœopaths themselves have more than once endeavored to have the law abrogated, and the old enactment, which gave separate boards to regulars and homœopaths, revived.

It is, however, by no means certain that a law of this character would be the best for the profession. The probable good and evil results which would come from it deserve most careful thought: all that is claimed for it here is that it is worthy of consideration before rejection. In the present temper of the profession, it is hardly probable that even this will be granted; and fortunately there are two other ways of overcoming the difficulty. The simplest plan is for the law to provide separate registration and separate examining boards for each so-called sect. The licensing board should, under these circumstances, give a diploma in English, setting forth to which body the possessor belonged, and the law should further require the diploma to be conspicuously hung up in the office.

The examination by the eclectic and homœopathic boards might become as much of a farce as is the examination of our medical schools; but the regular profession would not be responsible for this; a clear and sharp line would be drawn between the regular and irregular physicians, and a great blow dealt to the class of hermaphroditic practitioners that are, like sexual monstrosities, neither one nor the other thing, but only hideous and disgusting. Another, and possibly the best, plan would be to have a board composed of six members, who should examine respectively upon medical chemistry, physiology, anatomy, mechanical and physiological obstetrics, medical pathology, and surgical pathology. In this way all therapeutic questions would be avoided. At the same time the result aimed at would be achieved; for it is highly improbable that a man thoroughly grounded in the branches enumerated would not spontaneously study up therapeutics. The exigencies of medical life would keep up a never-relaxing pressure, too steady and too strong not to be yielded to.

Again, if it were deemed best, it would be feasible to supplement this board by others, representing the various so-called sects of medicine, which should examine upon therapeutics the candidate appearing before his choice of them, being registered accordingly, and exposing in his office a license, printed in English, stating to which medical sect he belonged.

The third commonly urged objection to legislation concerning the profession is the danger of political appointments and management. This is a real danger, but fortunately is readily guarded against. It has been suggested that the appointments should be made by the district judges. The profession should, however, keep the selection of examiners in its own hands. The law may be made to require that the members of the boards be chosen by a council elected by the registered physicians of the district or State, or that they be appointed directly or indirectly by the medical societies. In either case professors in medical schools should be legally ineligible for positions upon the examining boards, not because they are unfit for such positions, but for the same reason that "Cæsar's wife

should be above suspicion," and to remove possible temptation. It ought not to be in the power of slander to say, Such and such a medical school has a large number of its professors upon the State examining board and favors its own graduates. It ought not to be possible for any evil-disposed medical institution to "capture" or to have undue influence in the board.

On the whole, it does seem that there is no inherent and insuperable obstacle in the way of medical legislation except such as comes from the medical profession itself. It is argued that we have the worst government in the world, and that it is impossible to get good laws well enforced; but we do not think that such is really our condition. Life and property are as safe and justice is as well administered here as anywhere else in the world, and undoubtedly with time minor matters will follow. The real difficulty in the case seems to lie partly in the supineness of the profession, but chiefly in the vested school interests, which would suffer in the diminution of students that would undoubtedly follow proper legislation. Hence it is in the newer, not the older, States, where no such interests are as yet powerful, that the experiment will be made; perhaps not in States absolutely new, but in those which are coming up in a renewed youth of poverty, and its outgrowth of vigor, from the furnaces and destructions of civil war.

CORRESPONDENCE.

NEW YORK, August 4, 1877.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR: At this dull midsummer period there is, of course, absolutely nothing going on at the medical societies or colleges, but, somehow or other, people have a way of getting sick, and occasionally dying, all the same, "whether school keeps or not."

By way of winding up its affairs for the summer, the Medico-Legal Society had a very pleasant reunion, which was attended by quite a number of distinguished men of both professions, and at which the venerable Dr. Isaac Ray, of Philadelphia, read, by invitation, a paper on "*Testamentary Capacity.*" At the commencement of it he referred to the differences of opinion which have so long existed between medical and legal authorities, and which still continue to a certain extent, as to what constitutes unsoundness of mind,—the former generally including in their definitions all the circumstances of the case, physical as well as mental, while the latter are apt to overlook the first altogether and concern themselves only about the last. Lord Coke, he went on to say, was the first who made any effort at classifying the various sorts of persons who, in technical phrase, are *non compos mentis* under the English common law, and his crude attempt still in a measure influences both English and American jurisprudence. Idiots, lunatics, persons overcome by grief or old age, and imbeciles, are there mentioned as those unfit to make a will, and the description of each class is always faulty, and often ridiculous as well.

So far as the first class was concerned, Dr. Ray thought there could be no question as to their incapacity; about the second, trouble arises when we come to persons who, although well enough described as lunatics generally, yet have "lucid intervals," wherein they can, under the ruling of the courts, make a valid disposition of their property. He had no fault to find with the legal rule that when a person of this character wills his property in a "natural" manner the presumption was that he made the will in such a lucid interval; but he did object to their attempting at the same time to prove not only competence for the particular business referred to, but also a rational state of mind on every other subject.

The third class, he believed, furnished more contested wills than all the others together, for the reason that old age and great sorrows have a certain very marked enfeebling effect upon the mind, which is taken advantage of by interested persons.

The only mental function required in making a will, it seemed to him (when the individual is left free to act for himself), was memory; and he did not think that absent-mindedness should be of any legal consequence in this connection. The old gentleman who constantly hunts for his spectacles, or goes up the middle aisle of the church on Sunday with his umbrella spread over his head, would be pretty sure to remember everything necessary if he set himself to thinking about the distribution of his property. If he remembered its amount and those who had natural claims on him, that was all the law should ask.

Making a will, however, he considered not altogether an exercise of reason. A man's emotions, feelings, passions, prejudices even, may dictate its provisions, and the law should not exclude them. All that it ought to do was to see that they did not influence the testator so far as to shut out reason altogether. He thoroughly approved the decision of the Massachusetts Supreme Court, not long ago,

when it affirmed the validity of a will drawn by an old man who, after having made it in calm moments, in a fit of anger erased his name therefrom by a scratch of his pen.

As to the fourth class, imbeciles, he thought it was exceedingly difficult to describe them. The only standard of mental capacity, set up by lawyers for their own benefit, and a very crude one at that,—that to be competent to make a will a person must be competent to make a contract,—had been almost abandoned, and it was left to be proven in each individual case whether the testator had sufficient intelligence for the purpose.

Dr. Ray then suggested that a fifth class should be added to the four of Coke, namely, those who are only partially insane, or monomaniacs. The best rule he believed to be that which, so far as he knew, was now generally accepted as the law, and which was first judicially laid down by Chief-Justice Nichols in the English Chancery Court in 1828, when a well-known physician left a will leaving nearly all his property to his nephew, to the exclusion of an only daughter. It was shown at the trial that, although a good enough man in every other respect, and perfectly rational at all times, he had a violent dislike for his daughter, who, according to all the testimony, was a meek, dutiful girl, and that when she was still very young he on one occasion went so far as to remove all her clothing, tie her to a bed-post, beat her with a rawhide, and then wash the wounds with brine. The court, on these facts, decided that the man was not in a sound condition of mind when he excluded this girl, his next of kin, from a share in his property. The same principle was enunciated in the decision of Chief-Justice Cockburn in 1870, when a wealthy unmarried woman imagined herself as bound to give birth to a new Saviour of the world, got her lawyer to fit up a magnificent house for her in London, gave a man by the name of Smith full control over her property, and made him her principal heir in her will, as being the natural guardian of the wonderful child that was never born. The ruling in this case was that the woman, although in all other respects of sound mind, was not on this subject.

At the conclusion of the address a vote of thanks was tendered Dr. Ray by the Society, and then a public reception was given in his honor by the president, Prof. Frank H. Hamilton, at his house in Thirty-Second Street, where a large number of guests passed a pleasant hour in social intercourse and partook of the doctor's generous hospitality.

In dismissing the subject of "testamentary capacity," it may perhaps prove of interest to glance for a few moments at a case, involving many important points in insanity and medical jurisprudence, which has previously attracted, and is now again attracting, a good deal of attention here. It will no doubt be remembered that, in 1873, Frank Walworth, a grandson of the distinguished and venerated chancellor of the same name, was condemned to imprisonment for life for murder in the second degree, in the shooting of his father, Mansfield Tracy Walworth, a well-known literary character. On the 1st of August, Governor Robinson granted him a pardon, and at the same time gave to the public an elaborate statement of his reasons for so doing, of which the following are some of the main points.

After some discussion of the scope of the pardoning power, it goes on to say that the application of young Walworth for a pardon was presented to Governor Tilden, but the only action taken by him upon it was to appoint a commission, consisting of Dr. John P. Gray, Superintendent of the Utica Insane Asylum, and Judge Wm. J. Bacon, of Utica, to examine and report upon the past and present mental condition of the prisoner. Their report was made some months since, with great clearness and precision, and now Governor Robinson says, "After the careful perusal of every word of the voluminous mass of evidence, exhibits, letters, and papers, which make up the melancholy record of the tragedy for which he was convicted, and the most earnest reflection, I can reach no other conclusion than that, while upon the evidence given at the trial his conviction was technically proper, he is morally entitled to his release." "The beginning of the tragedy," he continues, "lay far back of aught that is known by the public. The prisoner, as a boy of nine or ten years, was a quiet, well-behaved child, marked mainly then, as now, by an affectionate devotion to his mother, but about that time he became afflicted with epilepsy in its worst form. Of his father, it is now only charitable to believe that he was unsound in mind. For years he had devoted his life to a systematic course of threats and abuse towards his wife, which for malignity, bitterness, and brutality are fortunately seldom equalled. This conduct, long concealed from the knowledge of the son, was at last discovered by him upon entering a room while his father was in the very act of striking his mother. The son at once interfered to protect his mother, and from that moment shared with her the insane hatred of the father. . . . At last this era of passion ended, as was not unnatural, in a tragedy. At Walworth's trial the jury found by their verdict that this murder was neither premeditated nor deliberate. In that finding I fully concur. The act must, then, have been the result of sudden mental impression or condition; and it seems to me that it may well be regarded as a natural result of the continuing impression upon the prisoner's enfeebled intellect that his father was in desire and interest his murderer, and needed only the opportunity to become such in deed. The meeting of the two cannot be better expressed than in the words of the venerable William Cullen Bryant, who, in his

letter asking a pardon for young Walworth, laconically says, 'If a jury were now to pass upon the evidence in the case, I think they would acquit the accused. The meeting between the father and the son would be regarded as an encounter between two insane persons, in which one of them was slain.' The present mental condition of the prisoner, while it furnishes no ground for his pardon, yet renders the question of his further detention simply one of public morals. Imprisonment has done its full work, and the measure of his capability to suffer from it is ended. I am informed by the highest medical authority, as well as by the commission appointed by my predecessor, that his further detention will result in complete idiocy."

At the last meeting of the Academy of Medicine, before adjourning for the season, Dr. J. Lewis Smith read the history of a case of *chorea* occurring in a young child, with a report of the autopsy and morbid anatomy of the same. The patient was an inmate of the Foundling Asylum, where he had been brought soon after birth; though during a portion of his life he was boarded out in a family in the city. Several times during the first two years of his life he was affected with what seemed to be intermittent fever, as the symptoms yielded readily to quinine; and once he had a conjunctivitis, which lasted about two months. When about two years of age, he was attacked, without any apparent cause, with a very severe form of chorea, the disease affecting both the upper and lower extremities, as well as the eyes and facial muscles, and rendering it impossible for him to walk. During sleep the choreic movements ceased. From the use of Fowler's solution in five-drop doses three times a day, there was marked improvement, so that the child was enabled to walk, though with an uncertain gait. In three-drop doses, which were at first given, the medicine seemed to have no effect. When two years and five months old, the patient died from a fit of suffocation incident to a sudden attack of laryngo-tracheo-bronchitis.

At the autopsy there were well-marked evidences of acute inflammatory action in all the air-passages, and some congestion of the lower and posterior portions of the lungs. The entire brain and spinal cord, as well as the heart, were sent to Prof. Francis Delafield for examination, and he found in the latter an atheromatous condition of the aortic valves, thickening and insufficiency of the mitral valves, and some thickening of the endocardium in the left ventricle. The cerebro-spinal axis was entirely normal, except that the vessels of the brain were so full of blood as to make them appear as if injected, and the disease could not therefore have been due to embolism, sclerosis, or softening of the gray matter, as is claimed variously by different authorities. The most remarkable point about the case was the early age at which the disease made its appearance.

After completing its history, Dr. Smith read some statistics in regard to chorea occurring in the Children's Department of the Bureau of Surgical and Medical Relief at Bellevue Hospital for Out-Door Poor. The deductions from them corroborated the observations made by others; but nothing new was developed in regard to the disease. Out of some 16,000 cases treated during two years and three months, there were 82 cases of chorea, or 1 in 207. According to Hillier, the number was 1 to 321 in the out-patients of the Children's Hospital in London. The age of the youngest patient was three years, and, as noticed by all authorities, the disease occurred most frequently between the ages of five and ten. There were about the usual proportion of cases in which rheumatism had been noted and in which fright seemed to be the exciting cause; and, as is ordinarily the case, the female outnumbered the male patients by almost two to one. In regard to rheumatism as a cause of chorea, Dr. Smith remarked that some authorities held that it was not the rheumatism itself, but the rheumatic diathesis, which bore a causative relation to the disease; and in apparent support of this view he mentioned several cases in which the children themselves had never had rheumatism, while their parents were subject to it, and some in which chorea made its appearance first, and afterwards they were attacked with rheumatism. He related a number of instances in which fright was the exciting cause, and stated as a curious fact in this connection that he had known cyanosis to be suddenly brought on by fright in children who, on account of the condition of the heart, had been previously liable to it, but in whom the blue discoloration had never before made its appearance. Lastly, as to treatment, he said that he believed that physicians were gradually acquiring more and more confidence in arsenic as a curative agent, especially if given along with iron in appropriate cases; since it ought not to be forgotten that anæmia is one of the most frequent of the predisposing causes of chorea. I find that in narrating Dr. Smith's case I have neglected to mention that, on adding an equal quantity of nitric acid to some of the urine, and allowing it to stand, there was a deposit of crystals of nitrate of urea amounting to about half the bulk of the urine; which goes to confirm the statements of other observers, that in choreic patients there is an abnormal amount of urea eliminated, on account of the severe and constant strain upon the muscular system.

At a recent meeting of the Obstetrical Section of the Academy, a physician related the case of a lady who imagined herself pregnant and to have passed the proper time of her confinement. Under the circumstances she consulted a number of physicians, and they all

told her that there was not the slightest cause for uneasiness, as she was not pregnant at all. Not being satisfied, however, she went to another well-known M.D., who informed her that the other gentlemen were mistaken,—that she really was pregnant, and that if she would give her consent he would come around to her residence on the following day and take away the child. To this arrangement she readily assented, and at the appointed hour the medical man appeared at the house, carrying with him a very mysterious-looking basket. After a considerable time had been spent in various manipulations, a splendid infant was produced from under the bed-covering and presented to the would-be mother as her offspring. But the lady had been through childbirth once or twice before, and had too vivid a recollection of the experiences of that pleasing little function of the female economy to be deceived on this occasion, and indignantly drove the accoucheur from the house as a wretched impostor and unmitigated fraud. Who the "well-known M.D." was, or what his standing in the profession, did not transpire.

About the middle of July the Board of Health received the long-expected appropriation of five thousand dollars from the Board of Apportionment, and immediately proceeded to organize an extra corps of physicians for house-to-house visitation in the tenement districts, in accordance with the plan adopted last year. It had been the purpose of the Health Board to do this the first of the month, but it was not until the rapidly-increasing weekly mortality among the children of the poor began to grow alarming that the necessary appropriation was forthcoming. Before this was received, the vaccinating corps under Dr. Taylor had done what they could to relieve the suffering among the children after the warm weather set in, and during the week preceding the appointment of the physicians above spoken of, 143 patients were prescribed for and 146 tickets for the floating hospital distributed by them. In the selection of the medical inspectors for temporary service it was directed by the board that a preference should be given to those who served last year, or who had had unusual experience in treating the diseases of children. The effect of the work of this extra corps of inspectors is already evident in the diminished mortality among the tenement population, and no doubt one of the chief ways in which this has been accomplished has been the arrest of diarrhœal disease in its early stage in cases where the mothers would not have thought of seeking medical advice until it had advanced so far that there would be but little hope of saving the life of the little patient. During the week ending July 7 there were 673 deaths, an increase of 104 over the preceding week, and during that ending July 14 there were 831 deaths, an increase of 158 over the preceding week. The greater part of this mortality was in houses containing four families and over, and among children under five years of age. During the week ending July 21 the extra inspectors were appointed, and the mortality decreased to 756, which is considerably below the average for the corresponding week of the past five years. The number of deaths reported during the week ending July 28 was 717. At the last meeting of the Board of Health the register of vital statistics reported that the deaths of children under five years of age and of persons suffering from diarrhœal diseases showed a further decline during the week, the mortality of the former being 67 and the latter 63 less than the mortality for the previous week, notwithstanding that the mean temperature was 2.3° Fahr. higher. It was noticeable that in the wards containing a small area and large tenement population the death-rate was much higher than in those containing a larger area and smaller population. Of the total number of deaths reported for the week, 106 were in institutions and 396 in tenement houses. There were 3281 deaths, 213 still-births, and 2173 births during the month of July, 1877, against 4172 deaths, 190 still-births, and 1986 births reported during the corresponding month of 1876.

Prof. John T. Darby, of the University, has been appointed attending surgeon to Bellevue and Mount Sinai Hospitals.

The death of Dr. Alpheus B. Crosby, Professor of Surgery at Dartmouth, and Professor of Anatomy at Bellevue Hospital, New York, is just announced as having occurred at Hanover, New Hampshire, August 9, after two days' illness. No particulars are at hand.

P. Brynberg Porter.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

Thursday Evening, April 26, 1877.

The President, Dr. H. Lenox Hodge, in the chair.

Cystic degeneration of the kidneys. By Dr. Wm. Pepper.

THE specimens were taken from a seaman, aged 27, of healthy parentage, who was admitted to the University Hospital, March 27, 1877. Until thirty days before admission, he had never been ill, but for the past month he has been failing, being without appetite and growing steadily weaker, until five days before he entered the hospital, when he was compelled to give up work and go to bed. On admission, he appeared thin and anæmic, and complained only of general weakness and loss of appetite. His pulse was 120, respirations 26. He was ordered a milk diet and grs. x. of

pulv. ipecac. comp. During the night he vomited half a pint of yellow flaky matter, and had four evacuations from his bowels.

On the next day he seemed better, but in the afternoon vomiting returned, there was slight twitching of his hands, and, later, slight stupor supervened.

On the 29th the stupor increased, and there was vomiting, rapid breathing and pulse. By the 30th, stupor was complete, pupils dilated, heart irregular and excited; he vomited at 3 P.M. In the evening, an involuntary evacuation of the bowels took place, stupor deepened, and temperature for the first time rose to 100⅖°. The temperature was noted hourly after 7 P.M., and reached 102° at 10 P.M., after which it fell to between 95° and 96°, and continued until he died at 12.20 A.M. of the 31st.

The urine was examined once before death and found to be slightly albuminous, but no examination by the microscope was made.

Post-mortem Examination.— Thorax. There were slight adhesions, but the lungs were healthy. There was slight concentric hypertrophy of the left ventricle. *Abdomen.* The abdominal organs were normal, except the kidneys, which are exhibited. They are enormously enlarged, and presented complete cystic degeneration.

Examination of urine removed from the bladder at the *post-mortem* by Dr. Tyson. It was evidently, but not highly, albuminous, sp. gr. 1016, and secondarily alkaline. *Microscopically* were found numerous leucocytes, crystals of triple phosphate, *fragments of uriniferous tubules*, together with partial and even entire Malpighian bodies, some of these with a considerable portion of uriniferous tubule attached.

Dr. JAMES TYSON said that this was the second instance in which he had found fragments of the tubular structure of the kidney in the urine. The third and only other case in which he knew them to be found, he thought, was referred to by Dr. Beale in one of his works.

Dr. CARL SEILER remarked that the case illustrated the importance of a microscopical as well as a chemical examination of the urine in every case. He also remembered the case referred to by Dr. Beale.

Cerebral abscess and dilated bronchi. By Dr. J. H. HUTCHINSON.

(See original communication in current number of the *Times*.)

Dr. WM. PEPPER said the case was an exceedingly interesting one, while its origin was, it appears, involved in obscurity. Were it not for the extreme degree of bronchial dilatation, which indicates pulmonary disease of long standing, he would be inclined to suspect, from the lesions of the pulmonary tissue proper, that they were secondary to the cerebral disease rather than antedating it. The absence of softening of tissue, the absence of granulation, and the character of the fluid exuded, are conditions which are suggestive of those quasi-consolidations which we meet in long-standing pneumogastric irritation which we not unfrequently see come on after old organic lesions of the brain. But the physical signs appear from the very earliest date to have indicated bronchial dilatation, with surrounding hardening of the lung. It is much to be regretted that the patient's history was not obtained, as there was no history of serious lung trouble, but slight cough and expectoration, whereas very soon after the first examination there was evidence of extensive dulness over the posterior part of the chest.

With regard to the relation between pulmonary disease and brain trouble, while he had seen abscess of the brain attending affections of the lung, it was always where suppurative or caseous disease had been going on in the lung-structure itself and not in the bronchi.

The cases quoted by Dr. Hutchinson show that the latter connection has been observed; but it is undoubtedly very rare.

Dr. HARRISON ALLEN was struck with the fact that at the *post-mortem* examination so much pus was found in localities where we would not expect it. In view of this, it occurred to him that it was better to make examinations of the brain before taking it out of the brain-case, after removal of the skull-cap, to cut down laterally to the ventricles and withdraw the serum by means of a long-nosed syringe. He thought that the method of examination as ordinarily practised must give rise to many erroneous reports of the results of such examinations.

Dr. HUTCHINSON said that although not unaware of the relation occasionally existing between abscess of the brain and purulent collections in the lungs, he was ignorant, until the occurrence of this case had led him to make some researches into the literature of the subject, of the connection between the former condition and dilatation of the bronchi. He thought a point of considerable interest in the case was the improvement which had taken place under the use of large doses of iodide of potassium, and which had been so marked as fully to confirm him in his opinion that the case was one of syphilitic disease of the brain. The rigidity of the neck and the paralysis of the face passed away, but after three or four days returned; this time, however, affecting the muscles of the right side of the neck. He was at a loss to account for this, because the lymph at the base of the brain was deposited equally over the two sides.

Another point of interest was the absence of anæsthesia at any time in the history of the case; the patient always giving evidence of feeling pain when pricked with a pin.

Aneurism of aorta. By Dr. JOHN M. KEATING.

The specimens which I present to the Society this evening were removed last week from the body of an Italian, aged about 45, who died suddenly a few hours after admission to the Philadelphia Hospital. He stated that he was subject to paroxysms of asthma, with a feeling of compression at the sternal notch, which accompanied palpitations of the heart and had been attributed to "heart disease."

The area of cardiac dulness was said to have been greatly increased, with extended and more pronounced apex-beat, and at the same time a murmur of suffused mitral regurgitation was noted. The man died quite suddenly, and I had no chance of examining him before the autopsy.

Autopsy.—The body was well nourished, of great muscular power, showing, though no history had been obtained, that his occupation had not been a sedentary one. On uncovering the sternum, the pericardial sac was filled with serous contents, the membrane itself presenting no evidence of any inflammatory trouble.

There was also hydrothorax, the amount of contained fluid being very great, equal on both sides, free from shreds, and but slightly tinged with blood.

The lungs were gorged with venous blood, but were otherwise healthy. The heart itself was much hypertrophied, being about one-half again its normal size. The cavities were filled with dark, soft clots. There was no valvular disease whatever.

Almost at its point of departure, the aorta presented an appearance of atheroma in many patches; these were small, and many were only made evident by grating the knife as it was rubbed edgewise along its surface. Just above the valvular attachment on the posterior surface of the aorta was an opening about *one-half inch* in diameter, with smooth, firm edges, somewhat oval in shape, communicating with an aneurism, the cavity of which, when emptied of clots, was about two inches in diameter. The tumor, when filled, must have pressed directly on the left auricle.

A short distance above this was another opening, with an oval, serrated edge, communicating with an aneurismal sac of much larger size. This was found to be the size of a small fœtal head at full term. It pressed directly upon the trachea at and above its bifurcation, and extended to the right and somewhat behind the trachea. The walls were thick and elastic; no rupture of either sac had taken place.

The peculiar interest attached to this case was involved in the question of the immediate cause of death, which occurred very suddenly. This fact alone would point to the pressure on the pneumogastric and its branches, and sudden interference with the heart's action. Nevertheless, there are many points in the *post-mortem* appearances which lead us to consider the obstruction to the entrance of air, either in the larynx or trachea, as the cause of death.

We find, upon dissection, the complete involvement of the nerves on the right side of the trachea, in consequence of which we naturally presume there must have been pressure, with its results.

The cyanotic condition of the lungs shows that aeration was totally interfered with. If, as is stated, the *inferior* or recurrent laryngeal nerve is the nerve of inspiration, of course the pressure of the tumor upon it would cause the difficulty which in this case existed. Expiration would receive no impediment. What, then, would be the result? The difficulty in getting air in, and the extreme facility by which that already in the lungs could get out, would naturally cause an attempt at a vacuum in the *intra-pleural* space, which would be followed by hydrothorax. Of course, after the serum has accumulated, an additional obstruction is added to prevent the entrance of air, the circulation is checked, and heart-failure occurs. In those cases where expiration is impaired, as emphysema, for instance, I believe we find œdema of the lung at the autopsy.

Dr. SEILER said that, when present, the voice is a very valuable characteristic. In many cases of goitre there is marked aphonia, due to pressure of the tumor upon the laryngeal nerve; but there are also cases of aphonia in which no such pressure can be shown to have existed.

Dr. HODGE said the point was a very interesting one. The general explanation of the modified voice is by pressure on the nerves or by alteration in the size of the trachea. Cases occur where it is evident that the pressure on the trachea is insufficient to produce an encroachment on its lumen, and yet the patient appeared to die of dyspnœa. Mr. Lennox Browne, of London, explains the result by pressure upon the muscular tissue between the rings of the trachea interfering with its proper action.

Dr. SEILER said it was almost impossible to reduce the lumen of the trachea to such an extent as not to permit sufficient air to pass through. We use very small tubes in the operation of tracheotomy, and yet they seem all-sufficient for the air-supply. In removing polypi, the cut edges of the cord often grow together, leaving a very narrow orifice for breathing, and yet there is no dyspnœa. These fatal cases are often explained on the supposition that a sudden momentary pressure on the recurrent laryngeal nerve produces paralysis of the abductors for a time and allows full play of the adductors to close the glottis.

Dr. HODGE said the point made by Dr. Seiler was important. As regards goitres, the pressure caused by them is seldom so great

as to prevent the free passage of air. There is another class of cases presenting dyspnœa, —the syphilitic ulceration in the interior of the trachea,—where the nerves are not involved, and yet we have fatal dyspnœa.

Dr. SEILER recalled a case in which tracheotomy had been performed and the patient died under the operation. There proved to be almost complete closure of the trachea by cicatricial tissue, three inches below the seat of operation, and the immediate cause of death was a small clot of blood which had descended the trachea and filled the narrow opening which had remained.

Dr. HODGE said much depends upon the condition of the patient,—some temporary cause producing temporary dyspnœa. In other cases, where there is a continuous obstruction, there is a continuous dyspnœa.

Dr. H. further said it is not infrequent for tracheotomy to be performed at a point supposed to be below the seat of obstruction, and after the operation the position of the disease or external pressure to be found even lower down.

GLEANINGS FROM EXCHANGES.

INHALATION OF PHENIC ACID IN CATARRHAL AFFECTIONS OF THE RESPIRATORY ORGANS (*Maryland Medical Journal*).—In a French journal the following résumé appears, translated from the Russian: "M. Moritz noticed that the exhibition of phenic acid in vapor diminished the frequency of bronchial catarrh, and one of his colleagues, Assendelfft, made the same observation. He therefore tried its use on two young children suffering with whooping-cough, and in a few days they were well. He afterwards tried it in a case of measles: the cough diminished, and the patient was much calmer at night. In two surgical cases, with tendency to pulmonary congestion, the cough disappeared completely. On the contrary, this treatment proved deleterious in two phthisical patients.

"In the general discussion which followed the reading of this paper, Sehwers agreed with Moritz that phenic acid controlled cough, be it administered by injection or inhalation. Masing had remarkable success with it in a case of whooping-cough of three months' standing. Schmitz and other members of the Medical Society of St. Petersburg stated that they had derived excellent results from the employment of this agent."

A NEW SIMPLE METHOD OF OPERATION FOR LARYNGEAL POLYPI (*The Clinic*).—Voltolini, at a meeting of the Silesian Society of February 9 (*Monatsschrift für Ohrenheilkunde*, ii., 1877), communicated a procedure through which polypi may be removed from the larynx without the aid of instruments, and even also without the employment of the laryngeal mirror. It simply consists in "wiping out the larynx with a wiper, and so removing the soft polypi." As a wiper Voltolini uses a flexible wire to which is fastened a sponge of a thickness not exceeding one mm., which is previously softened in water and then pressed out. With such a swab he pushes "blindly" into the larynx. As soon as the entrance of the larynx is passed, it closes and embraces the probang. The particular art of the method consists "in permitting the swab to remain at rest as soon as the larynx has embraced it, waiting, as it were, until the larynx again opened." When this happens, as is very soon the case, the sponge is pushed farther downward through the open glottis, and "carried now upward and downward, wiping out the larynx." With the withdrawal of the sponge in the favorable cases the polypi are pulled out, and in this manner removed. As a matter of course, this procedure only succeeds with relatively soft polypi. The author gave six cases in which with him this simple process was successful.—*Berl. Klin. Wochenschr.*, No. 8, April, 1877.

MISCELLANY.

COLD BATHS IN INFANTILE DIARRHŒA.—In our issue of the 13th ultimo, we remarked that Dr. Horatio Wood, of Philadelphia, had drawn particular attention to the effect of heat and of the rays of the sun in causing cholera infantum, diarrhœa, enteritis, etc., and to the remarkable efficacy of enforced cold bathing in these cases.

It appears from *Lo Sperimentale*, No. 10, 1876, that Dr. Wocke has also been drawing attention to the same plans of treatment. He refers more particularly to the terrible epidemics of diarrhœa which prevail in summer. The epidemic is due, he says, in part to the deleterious influence of the elevated temperature on the infantile organism, and in part to the injurious effect which the heat exerts on the aliment, the milk, and the air inspired. For this state of things he recommends cold bathing, of which he has a high opinion. Wasting children, reduced by vomiting and diarrhœa, were as if regenerated by the second day after the baths were commenced. The restlessness disappeared, sleep was restored, the appetite increased, and the diarrhœa diminished. The cold baths act on the child as a tonic, and internal remedies then exert a better influence.

Dr. Wocke commences his treatment with cold douches to the head and stomach; then passes to baths, commencing at a temperature of 26° C., and reducing them to 22°. Three baths a day are sufficient.—*The Medical Press and Circular.*

SANTONIN-POISONING.—Prof. Binz has related a case in which apparently a very small dose induced serious symptoms. Two lozenges containing less than a grain were fol-

lowed ten hours afterwards by a convulsive attack beginning in the right upper limb, and afterwards appearing in the left arm and on the left side of the face. Several convulsive attacks followed for four or five days, during which period the urine was of a yellowish-greenish hue. The child had never had convulsions before. It would almost seem as if the lozenges must have contained more than the dose stated. Prof. Binz was induced by the case to make some experiments on animals, from which he concludes that nitrite of amyl is useless as an antidote, but that ether or chloroform should be inhaled or chloral hydrate injected.—*The Doctor.*

EXPLOSIVE COMPOUNDS.—Students are often warned not to combine creasote and oxide of silver, and some other dangerous compounds. Two explosions have lately occurred, which are not easy to explain. A bottle in which some iodide of strychnia had been kept was held to the fire to warm it and loosen the stopper, when it exploded with violence and wounded the hand. It is supposed that iodide of nitrogen had been formed in consequence of some decomposition such as that formed by treating iodine with excess of ammonia. The other accident occurred in distilling oil of bitter almonds over nitrate of silver, to free it from prussic acid. Towards the end of the operation an explosion occurred, shattering all the apparatus near.—*The Doctor.*

NEW HORSESHOE—ATTENTION, DOCTORS.—Mr. Yates, of Manchester, England, has invented a horseshoe composed of three thicknesses of cowhide compressed into a steel mould and then subjected to a chemical preparation. It lasts longer, and weighs only one-fourth as much as the common shoe; it never splits the hoof, and has no injurious influence on the foot. It requires no calks; even on asphalt the horse never slips. It is so elastic that the horse's step is lighter and surer. It adheres so closely to the foot that neither dust nor water can penetrate between the shoe and the hoof.—*American Medical Bi-Weekly.*

OIL OF STAVESACRE IN SCABIES.—The fixed oil of stavesacre has been highly recommended by Dr. Squire (*British Medical Journal*, June 16) as a remedy for scabies. It is quite colorless, and nearly free from irritant properties. It is also odorless, and so is a very unexceptionable remedy. It may be obtained in quantity from the seeds by expression. Dr. Squire uses freely to the affected parts an ointment composed of one part of the oil to eight parts of lard.

A DOG.—Dr. John Sundberg relates, in the *Popular Science Monthly* for August, the story of a pup, eight months old, without training, which (who?), when his mistress was taken ill, not only brought her a basin to vomit in, but, without being told, and without her knowledge, went and brought Dr. Sundberg.

THE election of Dr. Thos. R. Fraser to the chair vacated by the resignation of Sir Robert Christison is announced.

THE German army is to have the benefit of the newest invention in the way of glass. The old water-bottles have been confiscated, and a new pattern has been expressly constructed in glass toughened by the De la Bastie process. The new flasks may be flung on the ground and do not break, are not damaged by the ordinary casualties of concussion, and do not crack if filled with hot fluids.—*Medical Examiner.*

EXTEMPORANEOUS PILL-COATING.–The pills, made of a hard mass and well rounded on a smooth surface in the usual way, are moistened with simple syrup, diluted with one-fourth the quantity of water, and then rolled about with the outspread fingers in a comparatively large quantity of finely-powdered elm-bark.—*H. Hildebrand, in Chicago Pharmacist.*

BROMINE ACNE.—In a case of bromine acne at St. Bartholomew's Hospital in a girl, aged 18, who had been taking half a drachm of bromide of ammonium twice a day to check her epileptic fits, the following lotion almost completely removed them during the continuance of the bromide mixture: ℞ Sulphuris precipit., ʒiij; spiritus camp., ʒj; aquæ calcis ad ℥iij. Fiat lotio.—*The Doctor.*

A REMEDY FOR BEDBUGS.—A correspondent writes to the *British Medical Journal* as follows: "The best remedy for bugs in hospitals is a bug-trap made by boring a series of holes in a piece of soft wood with a gimlet, and placing this under the mattress of each cot. The piece of wood is to be placed periodically into a basin of boiling water. This is an Indian hospital plan."

JABORANDI IN ALBUMINURIA OF PREGNANCY.—Dr. Langlet reports (*Union Méd. et Scient. du Nord-est*, 1877, No. 6) a case of cure of albuminuria in a pregnant woman by jaborandi.

SIEMENS, of Dresden, is said to be manufacturing a glass, by means of hydraulic pressure, five times stronger than the toughened glass of Bastie.

PROF. LISTER is to deliver the introductory lecture at King's College, London, in October.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JULY 29, 1877, TO AUG. 11, 1877, INCLUSIVE.

CAMPBELL, JNO., MAJOR AND SURGEON.—Leave of absence extended twenty days. S. O. 178, Division of the Atlantic, August 10, 1877.

TURRILL, H. S., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Leave of absence extended three months. S. O. 168, A. G. O., August 8, 1877.

HALL, WM. R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To accompany, until otherwise ordered, the cavalry commanded by Capt. Whipple. S. O. 20, Headquarters Department of the Columbia, in the field, June 29, 1877.

BUELL, J. W., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted leave of absence for one month, on Surgeon's certificate of disability, with permission to leave the limits of the Department. S. O. 137, Department of Texas, July 28, 1877.

PHILADELPHIA, SEPTEMBER 1, 1877.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF POTT'S DISEASE OF THE UPPER CERVICAL VERTEBRÆ.

BY S. W. GROSS, M.D.,

Lecturer on Clinical Surgery at the Jefferson Medical College.

Reported by W. A. JOHNSTON, M.D.

GENTLEMEN,—You will notice in this girl, who is 15 years of age, deformity of the nape of the neck, and a peculiarity in the position of the head, which is slightly flexed, advanced forwards, and inclined somewhat to the right side. Her mother states that she detected the swelling four months ago; but I take it for granted that the disease upon which it depends had existed for some months previously. In the morning, when she rises from her bed, she is able to hold the head more nearly in an upright position, and has more control over its movements, than later in the day. At this time also the muscles in front of the neck are relaxed. At about noon, she complains of pain, which radiates down the shoulders and arms, and the head is fixed in the constrained and rigid position in which you now see it. Pressure upon the top of the head, rotation, and attempts to extend the head greatly aggravate the pains; but they are much relieved when she goes to bed, although they recur two or three times during the course of the night, awakening her from her sleep. Two months ago, she also suffered from pains which extended as high as the vertex on both sides of the occipital region.

The prominence on the posterior surface of the neck, which is the seat of an unnatural amount of heat, and is tender on pressure, extends from the occiput to the spinous process of the fifth vertebra. There is very slight projection of the separate spines, so that the deformity presents less of an angular appearance than is met with in tubercular disease of the column lower down.

Two weeks ago, this girl's father died of pulmonary phthisis: so that her trouble is a legacy transmitted by her parent. It is a beautiful illustration of Pott's disease, or tubercular disease of the spine, occurring, however, higher in the column than is generally the case, the dorsal region being the one most frequently affected. It would be interesting to determine the existing cause of the affection; but this I have been unable to do, and I can elicit no history of injury. Suppression of the cutaneous perspiration or disorder of the digestive apparatus would be sufficient to produce it, since in this disease there is always a latent spark lodged somewhere in the system, and ready at any moment to be aroused into activity by the slightest cause. I must confess that I belong to the school of pathologists who maintain that no one can have such a disease as this, or any other of those which are termed tubercular or strumous, without there being a predisposition to it.

The first four cervical vertebræ are here involved in strumous inflammation. Such an affection may be simulated by rheumatic or common inflammation of the vertebral ligaments; but in such cases, while pain would result from pressure upon the head, reflected painful sensations would not be experienced in the occipital region, the shoulders, and the arms. The value of reflected, or so-called sympathetic, pains, in the diagnosis of disease, is not sufficiently appreciated by the mass of the profession, and to those of you who feel interested in pursuing this topic I can earnestly recommend the highly instructive and interesting "Lectures on Rest and Pain," delivered by Mr. John Hilton, an eminent surgeon of London. In cases of tuberculosis of the spine, peripheral pain will almost invariably point out the seat of the lesion weeks before the deformity has established the diagnosis. Hence, when a child is brought to you suffering pain somewhere upon the surface, it should be stripped, and the course of the painful nerve be traced back to its point of emergence from the intervertebral foramen.

In the case before us, one of the earliest symptoms, and one which clearly indicated spinal trouble, was bilateral pain over the occiput, which reached as high as the vertex, and followed the distribution of the great occipital nerves, which are branches of the second cervicals and emerge from the spinal canal between the atlas and axis vertebræ. The bodies of these bones

being invaded by inflammation, the nerves in the intervertebral foramina become irritated, and express their irritation by pain which is referred to their peripheral distribution. Subsequently, pain was experienced in the shoulders and arms; and this is readily accounted for when we consider that the lower trunks of the superficial cervical plexus, which are distributed to the tissues over the scapula and clavicle, are involved in the morbid action. You may ask, What has the superficial cervical plexus to do with the pain in the arms? Between the fourth cervical nerve and the fifth cervical nerve, which forms a part of the brachial plexus, there is a communicating branch; and it is along this that the sensation of pain is reflected down the arms.

The pain is relieved at night, or whenever the patient assumes the recumbent posture. During the day, while the girl is moving about and sitting up, the bodies of the carious vertebræ are pressed against one another, as is shown by the flexed and advanced position of the head. The pressure is produced by the weight of the head, and increased by the contraction of the muscles attached to it. The sterno-mastoids are only slightly contracted; but there are a number of others which flex the head and are supplied by branches of the cervical plexus. Two in particular are involved: they are the rectus capitis anticus major, its upper and middle portions, and the longus colli. They arise from the transverse processes and bodies of the cervical vertebræ, and are inserted, one in front of the foramen magnum of the occipital bone, and the other into the tubercle on the anterior arch of the atlas. The weight of the head, pressing on the bodies of the vertebræ, irritates the nerves; the nerves of sensation react on the nerves of motion, and the muscles are stimulated to contraction, thereby causing still greater pressure, and keeping up the pains. A similar effect is produced in coxalgia, where the adductor and pectineus muscles are firmly contracted. When our patient goes to bed, the weight of the head is removed, the irritation of the nerves subsides, and the muscles relax. On rising in the morning, no muscular resistance is offered to the nodding motion of the head, and it can be brought into a nearly vertical position. After two or three hours, however, the weight again stimulates the muscles to contraction, and the flexion and pain recur.

The pains felt at night are due to reflex muscular action. During the day, while the brain is on the alert, the muscles which steady the vertebral column are under the control of the will, and are kept constantly in a contracted state to prevent motion; but during sleep the irritation of the exposed filaments of nerves in the cancelli of the bones is transmitted only to the medulla oblongata, the muscles are involuntarily thrown into contraction, and pain is produced by the inflamed surfaces of bone being brought violently together.

The prominence of the back of the neck is due not only to the absence of the bodies of the vertebræ and the flexed position of the head, but also in part to the projection of the spinous process of the axis vertebra. When the head is flexed the atlas vertebra slides forward, making the axis prominent. The greater part of the swelling is, however, due to the deposition of inflammatory new material between and around the posterior segments of the vertebræ. It is placed there for the purpose of forming a splint to keep the parts at rest. The contraction of the muscles answers the same purpose. Nature is doing her best to cure this girl, but will not entirely succeed, and in her present condition she is in danger. Owing to the softening of the atlas vertebra, the transverse ligament may become torn away by an incautious movement; the odontoid process would then be forced backward into the medulla, and produce sudden death.

There was a time when this disease could have been met so as to have prevented deformity. It should have been attended to when the reflected pains gave warning of the impending mischief, or before there was much destruction of the bones and the intervertebral disks. Then, with proper care, a large amount of the now inevitable distortion could have been avoided. All that we can do in the way of treatment is to check the progress of the disease and prevent further deformity. The patient's hands are cold and clammy, showing that the circulation in the outskirts of the system is imperfect, and her appetite is poor. Hence I shall order her two grains of quinine, fifteen drops of the tincture of the chloride of iron, and five drops of the tincture of nux vomica, to be taken every

eight hours, along with a nourishing diet, of which an abundance of fresh milk and bread shall form a prominent feature. With a view to equalizing the circulation, her mother will be instructed to sponge her off with tepid water every morning, and to follow this by friction with a salt towel, which is made by dipping a towel in a strong solution of common salt and allowing it to dry in the sun.

You need scarcely be told that the further progress of the disease can only be arrested by keeping the parts perfectly at rest and free from pressure. If you have carefully weighed the symptoms, you will have observed that you have only to follow out what nature prompts you to do. When the patient is recumbent, the vertebræ are relieved of the weight of the head, and a night's rest is sufficient to relax the contracted muscles and relieve the pain which is a source of so much suffering. Hence it must be evident to you that rest in the recumbent posture is imperatively demanded in this case. To make it effectual, the patient should lie on a hair mattress, the head and neck being supported by a small pillow of sand or small grain, either of which will mould itself to the inequalities of the surface; while the movements of the head are still further restrained by short bags of sand placed on each side and reaching from the top of the head to the shoulders. In this position she will be bathed and fed, and pass her excretions, and not be allowed to rise for any purpose whatever. To be of service, recumbency should be strictly enforced, and be prolonged for months if it be necessary, or until such a time as the vertebræ shall have become consolidated by bony material, which will be indicated by freedom from pain on practising the manœuvres which now elicit it.

A common idea, but, according to my experience, a most erroneous one, is that children bear recumbency badly; that they waste, lose their appetites, and not infrequently die, in consequence of their close confinement. Some cases of joint-disease go on from bad to worse under any course of treatment; but I speak advisedly when I say that recumbency causes children, in the majority of instances, to grow fat and strong. It is the pain which induces emaciation and even death; and there is no apparatus with which I am acquainted that entirely relieves pain if the patient be permitted to walk about during the acute stage of the affection. Should, however, it be deemed advisable to give the patient the benefit of fresh air, it may be carried out in a cuirass, which includes the head, made of wire and well padded. So soon as pain is not elicited by pressing upon or rotating the head, the child may be allowed to get on its feet, provided the spine, weakened by disease, be relieved of the weight of the head. For the richer class of patients, the best support is that of Mr. Darrach, of Orange, New Jersey, in which the weight of the suspended head is transferred to the trunk and pelvis by means of a steel rod, attached above to a padded plate which accurately fits the occipital convexity, and below to a plate fixed on a corset made of rawhide. As the corset is moulded on a plaster cast of the body, it accurately fits all the inequalities of the surface; and as it is perforated by numerous round openings it is extremely light, while freedom of the respiratory movements is provided for by fastening the corset in front with elastic bands. To the occipital plate is attached a band which runs around the sides and front of the head, and from which another band passes under the chin. In the poorer classes, the gypsum bandage of Dr. Sayre, in the folds of which a support for the head is embraced, answers a most admirable purpose.

ORIGINAL COMMUNICATIONS.

A CASE OF SPINAL IRRITATION IN A CHILD.

BY V. P. GIBNEY, M.D.,

Assistant Physician to the Hospital for the Ruptured and Crippled, New York.

AT the last meeting of the American Neurological Association I had the honor of reading a paper on the above subject, directing attention from a tabulated report of forty cases to its bearing on joint-disease, both real and simulated. Of that number a few, the more strikingly illustrative of the points it was then my desire to elucidate, were briefly detailed, while the one which forms the text for my remarks at present was simply included in the table, inasmuch as it was unrelated to arthropathies.

And what is spinal irritation? The use of the term I dislike exceedingly, but I

have not acquired sufficient boldness to eliminate it from my nosology. So far as my experience goes, I much prefer to designate the disease by "Localized Subacute Spinal Meningitis:" still, pathology furnishes me no facts, and to physiology I must have recourse. The question still stands, and when one attempts to speak on this subject some devotee of science immediately rises for information and demands a definition. The symptoms can be described, and even then several cases must be reported to make the account intelligible. To my mind the following, which I have framed, seems to meet the requirements of a logical and, at the same time, comprehensive definition:

A disease of the nervous system manifested by disturbance in the function of such nerves as communicate with the seat of lesion, which lesion is located within the spinal canal.

The term "nerves" is used advisedly, and may mean a cranial nerve, a spinal nerve, or a sympathetic nerve. The theory as to pathology, it will be observed, is not given a place in the above definition, the comprehensiveness of which is thereby preserved.

With these preliminary observations, I shall now give the case in question.

Mary L., æt. 11 years, was admitted to the Hospital for the Ruptured and Crippled on the 15th of May, 1875, the deformity for which relief was sought being a right skoliosis dependent on infantile spinal paralysis. The left lower extremity remained almost devoid of power; and this fact, taken in connection with her spinal deformity, made her gait about as awkward as one could well imagine. The family history, without specializing, is decidedly strumous,—the truth of which is not questioned when you see the father, the mother, or any of the remaining children. This child is of fair complexion, blue eyes, and light hair; has always been regarded as very delicate. The usual plan of treatment was adopted, and the results thus far have been gratifying.

For several months after admission an impetigo capitis gave considerable annoyance, but finally yielded to treatment. Nothing of further importance occurred until March 15, 1876, when there was observed a slight elevation of temperature (100¼°), and a general indisposition, attended with a swelling of the right parotid. On the day following there was nausea, and the diagnosis of parotitis became well established. There was no abatement of the indisposition next day, the stomach was very irritable, and the case at this early stage was commanding a deal of interest. The temperature, however, had not reached 100°, and on the 10th, the day following, the patient was convalescent.

17th.—Slight relapse, vomiting when food is taken into the stomach.

24th.—Parotid swelling on the decline, and since the 18th the child has been sitting up most of the day, recovering with seeming rapidity under the use of tonics and stimulants.

At 3 P.M., a severe paroxysm of pain in the epigastrium caused great prostration. Mustard sinapisms were applied, and relief was afforded within a half-hour. I have omitted to mention the constipation which has been a prominent feature in the case since the invasion of the parotitis: mild cathartics act well, however.

25th.—Two or three paroxysms, less severe than the one of yesterday, and not so protracted.

26th.—At 5 A.M., another paroxysm, attended with excruciating pain.

28th.—Vital signs this A.M. are P. 99, R. 24, T. 98½°, which are taken from the chart and differ only an inconsiderable amount from those of any morning or evening recorded during the illness. Over the lower half of the thorax and over the abdomen is an eruption, minutely punctated and rose-colored, raised above the surface in some places, and on a plane with said surface at other places. The abdomen is moderately tympanitic; there is tenderness on pressure over epigastrium, in right iliac fossa, and at various points along the right side of the body; constipation unrelieved.

31st.—Since date of last note the patient has been at times apparently well; the eruption is observed to be transient, the tenderness still a prominent symptom. There is no elevation of temperature, though the pulse is feeble and the borders of the tongue present a reddened appearance.

April 2.—Eruption appeared in same locality, and does not entirely disappear on pressure of the finger thereover; over the dorsal surface of hands and forearms are livid spots scattered profusely. The abdominal tenderness is more marked as the right iliac fossa is approached, and the whole abdomen is distinctly tympanitic.

3d.—Eruption this morning papular and macular, this evening typically lenticular. The bowels have been moved for the past few days by enemata.

4th.—During the forenoon severe pain in the right side, and this pain is aggravated by eating.

5th.—Temperature this afternoon during a paroxysm reached its maximum (101°).

6th.—No permanent relief afforded as yet; last evening for a space of three or four hours the suffering was intense, and was finally modified only by the administration of one-half a grain of morphia.

8th.—Over lower half of thorax anteriorly are six or eight oval spots one-eighth of an

inch in diameter, rose-colored, disappearing on pressure, and quickly reappearing when the pressure is removed. This afternoon the spots are not to be seen; the hypogastrium is excessively tender and painful, and, embrocations assisted by the internal administration of opiates having failed to relieve, a cantharidal blister is ordered, the vesicated surface for the three following days to be freely poulticed.

12th.—An amelioration so far as the extent of painful surface is concerned; normal evacuations without cathartics; but when deep pressure is made into the right iliac fossa the child cries aloud.

16th.—For several days there has been an intermission in the paroxysms, but to-day there is a severe recurrence.

18th.—The *left* hypogastrium is the seat of pain and tenderness, while the right is free.

The notes from this date to May 19 exhibit no marked changes in her condition. The diagnosis, of course, was obscured, and the various symptoms have been treated by such medicines as seemed indicated. At one time we felt convinced that metastatic disease of the ovaries was the ailment; at another time a clear case of typhoid fever would have been made out but for the negative facts as shown by the thermometer. One day the child seemed as well as ever, on the next day death was thought to be imminent. Dr. Knight was equally puzzled with myself, and it was decided to seek aid from our consulting board.

10th.—Dr. Flint, Sr., was called in consultation to-day, and gave, as his diagnosis, neuralgia of the bowels, advising therefor full doses of quinine.

11th.—About 10.30 A.M., a violent paroxysm of pain, followed by coldness of extremities and general tremor, collapse being momentarily feared. At 6 P.M., another attack, similar to that of the forenoon.

14th.—Since the 11th the patient has been perceptibly improving, and is now, to all appearances, entirely relieved.

28th.—Pains have returned, and equal in severity any yet experienced. A possibility of the menstrual function beginning induces us to administer emmenagogues, though the absence of any developments, either mammary or pubic, makes this extremely improbable.

June 6.—The emmenagogues have not afforded any relief, and the function has not been established. From this time to January, 1877, nothing permanent has been effected, the same condition prevailed, and we reluctantly, yet hopefully, intrusted the cure to time itself.

January 9.—On two separate occasions to-day, while the pain was at its height, there was considerable hæmatemesis, and there were observed two or three placques of a lenticular eruption over the abdomen. The child, on being questioned as to the locality of the pain, referred it to the abdomen, the back, and the thighs. The stomach was very irritable, and the hæmatemesis followed the last ingestion of food. The probability of vicarious menstruation then came up for consideration.

25th.—While passing my hand over the ilio-costal spaces this morning, seeking for points of greatest tenderness, the lumbar spine was incidentally touched, whereupon the child suddenly withdrew her body and cried out with pain. This tenderness I found to extend from the tenth dorsal to the last lumbar. A diagnosis, now, of spinal irritation was made, and a blister was ordered.

February 2.—The blister did not act as desired, very slight vesication being produced: poultices, however, were applied to the part, and there is already a change for the better. Spinal tenderness yet remains, and a second blister is ordered.

9th.—Very little tenderness in dorso-lumbar region, but in the middle dorsal it is present to a marked degree, and here the same course in treatment is pursued.

20th.—A fourth blister is ordered, in the hope of completing the cure, a faintly sensitive spot being found in the dorsal region.

March 6.—There is no tenderness anywhere; the child is perfectly well, and a cure is unhesitatingly pronounced. From that date to the present, July 17, 1877, not a sign of relapse has occurred, the patient being still in the hospital for the paralysis, and subjected to close observation.

Remarks.—In reviewing the notes of this case, I experience a certain feeling of self-condemnation: had the spinal column been examined at an earlier stage of the disease, a speedy relief, I am quite sure, could have been obtained. The obscurity of the symptoms, the nervous mimicry, and the pre-existing spinal paralysis, should have called my attention to the spine as the probable locality of the disease.

The diagnosis of the parotitis was easy enough, other cases being in the same ward. When the pains in the abdomen (referred especially to the region of the ovaries) followed, the interval itself suggested either ovaritis by metastasis, or, at least, an ovarian neuralgia. Still, I hesitated to diagnosticate the former without an elevation of temperature. Well, time wore on, and no relief came; then the attacks of extreme prostration, the eruption coming and going, the *lenticular* variety especially, the excess of tenderness in the right iliac fossa, and the moderate constipation (a common symptom in the typhoid fever of infancy), pointed strongly to typhoid fever, and, but for the thermometer, such a diagnosis would have

been unassailable. Later still, the visceral neuralgia, as diagnosticated by Dr. Flint, appeared plausible enough. Then came the hæmatemesis and the consequently presumable vicarious menstruation, deep pressure over the stomach inducing no pain and thus making the existence of a gastric ulcer improbable.

Whether the child had a severe fall to account for her disease, I know not; yet such a thing is not at all improbable, for her crippled condition makes her peculiarly liable to such accidents. The parotitis must be regarded as the exciting cause, in the absence of other facts. If one is familiar with the work of the Griffin brothers on "Functional Affections of the Spinal Cord," and later still the lectures of Sir James Paget on "The Nervous Mimicry of Organic Diseases," such a case as the one I have just related ought not to prove difficult of diagnosis. The treatment is simple, and indicates, to my mind, a clue to the pathology. The derivative effect obtained by the poultices to the vesicated surface, the absence of tenderness in cord-lesions, as proven by neuro-physiology, and especially the inability of a spinal anæmia to produce spinal tenderness (see various passages in Prof. Erb's contributions to Ziemssen's Cyclopædia, vol. xi.), point indubitably to a meningeal lesion. It will be remembered that on one or two occasions the temperature was as high as 101°, and ranged all along between this maximum and 98½°. A subacute spinal meningitis localized to portions below the cervical region could exist, it seems to me, with no higher range of temperature than prevailed in the present instance. Such a meningitis is sufficient to produce any degree of spinal irritation. Furthermore, the frequency with which we find spinal tenderness below the first lumbar vertebræ, the lower border of which marks the termination of the spinal cord, offers a serious objection to the spinal anæmia theory. A discussion, however, was not my purpose; and hence I shall conclude these remarks by a reference briefly to the etiology and the value of an early diagnosis. No physician with an extensive practice but can call to mind many an inveterate case of hysteria, and that, too, in the person of a young lady. He will remember the various neuroses as described to him on each recurring visit,—the localized perspiration, the clonic spasm of muscles in groups or individually, the prolonged abstinence from eating, the obstinate constipation, the loss of power in one or both lower extremities, the temporary neuralgias, etc., etc. All this he reluctantly calls hysteria. I have under observation at this time two just such cases, ladies just entering womanhood, who for four-and-twenty months have been borne from bed to chair and from chair to bed, and with all this monotony there are oft-recurring periods of suffering that would appall a martyr. And yet, whatever the pathological lesion now existing, the cause is traced clearly to a fall in each instance. One fell ten years ago from a scaffolding raised for school-room decoration, and, while the injury at the time seemed light, the six or seven years succeeding embrace a period of fatigue on the least exertion, pains in the back and side, and a "nervousness" peculiarly unpleasant. Her present helplessness, although having an exanthem as the exciting cause, is dependent on that fall as the predisposing cause. From the ease with which I have been able to trace varied nervous symptoms, in very many cases appearing at the out-door department of the hospital, to a fall from a height, I have come to regard concussion by this means as the most frequent of all the causes of spinal irritation; and hence when I find a young girl suffering from a sense of lassitude, neuralgias, and other neuroses that seem to belong to no special disease, I examine closely for any spinal lesion, and for the cause of such. If a suspected localized meningitis, however subacute or chronic, be the cause of the spinal irritation, I do not feel satisfied until perfect restoration is accomplished. These points of spinal tenderness, whether symptomatic of subjacent inflammation or of lesions in organs far remote and thus reflex, should not be passed unnoticed. Relief, even of symptoms, is here justifiable. When this is removed, the chances of a permanent cure are enhanced, be the pathology what it may.

135 East Forty-Second Street.

Messrs. Warner & Co., of this city, have received a letter of thanks and a testimonial of efficiency from the Egyptian Government for their sugar-coated pills (Vienna exhibit) presented some time since by them.

THE PERIOD OF MAXIMUM BIRTH-RATE.

BY H. G. LANDIS, M.D.,

Professor of Obstetrics in Starling Medical College.

"To everything there is a season, and a time to every purpose under the heaven: a time to be born, and a time to die," etc.—ECCLES.

IN the *Philadelphia Medical Times* for April 3, 1875, will be found an interesting article by J. Berens, M.D., on the period of maximum death-rate during the twenty-four hours. Such statistics may have little practical value at present, but they are full of suggestions, and when more complete may enable some one to work out vital problems of great importance. The poet observes, "Every minute dies a man, every minute one is born." There is, however, a popular opinion that the great majority of babies are born in the night-time. If this were so, the views of Clay, of Manchester, who does not admit any variation in the term of utero-gestation in individual cases, might be regarded as receiving some corroboration; for, since the majority of babies are made in the night-time, they might, from this exact view, be expected to be born at the corresponding season. With a view to contributing to our knowledge of vital statistics, I have tabulated the hour of birth in three hundred consecutive cases of labor at full term, trusting that others will secure and record ampler data. For 300 the average number in any hour would be 12½. A glance at the table shows us a maximum between 5 and 8 A.M., so far corresponding with the maximum death-rate, which was found to be between 6 and 7 A.M. But we find a secondary high-tide in the evening, scattered along from 6 to 11 P.M., and, instead of the gradual decrease after the maximum which characterized the death-rate, each of these high-tides is followed abruptly by a minimum period, viz., from 8 to 9 A.M. and from 11 to 12 P.M. The latter minimum also corresponds with the period of minimum death-rate. There is a third period of scarcity, between 1 and 3 P.M., which appears to be accidental. As to the matter of night and day, we find from 6 A.M. to 6 P.M. 130 against 170 in the remaining period, an excess of 13⅓ per cent. for the night-time. In the paper alluded to above, the case is reversed. The deaths from 6 A.M. to 6 P.M. are 10⅘ per cent. in excess of the remaining period. With the probability that larger statistics may greatly modify these facts, I do not feel encouraged to draw any conclusions. This, at least, may be said: many cases of labor are protracted through a long period without any assignable cause. A few pains may arise, the os become dilated to the extent of an inch or even more in diameter, when the pains will become feeble or infrequent and no progress occur for hours. Then the womb, more or less suddenly, gets to work again, and in an hour or less the labor is ended. It is, therefore, quite possible that the solar and atmospheric influences upon the general vitality have a part in determining the occurrence of such intervals of uterine inertia, and, therefore, in influencing the time of birth.

From midnight to	No.	In 6 hrs.	In 12 hrs. (daytime.)	In 12 hrs. (night-time.)
1 A.M.	14			
2 "	16			
3 "	16			
4 "	10			
5 "	12			
6 "	18	86		170
7 "	18			
8 "	16			
9 "	5			
10 "	13			
11 "	11			
12 M.	12	75		
1 P.M.	10			
2 "	6			
3 "	6			
4 "	11			
5 "	12			
6 "	10	55	130	
7 "	15			
8 "	15			
9 "	17			
10 "	14			
11 "	16			
Midnight	7	84		

DIALYZED IRON.

BY GEORGE HAY, M.D.

UNDER the heading "Leading Articles" in No. 252 of the *Times* appears an article on Dialyzed Iron. Having procured from one of the druggists in this city a sample labelled "Wyeth's Dialyzed Iron," I proceeded to examine with the view of determining the quantitative relation between the chlorine and the metal in this preparation. Whether the relation ascertained by me in one instance will always be a constant relation it is impossible for me to tell, and whether the sample was untampered with I cannot say (though it is not likely to have been tampered with), as it was not obtained directly from Messrs. Wyeth & Brothers. The sample diluted with distilled water remains a perfectly clear solution. The addition of three vol-

umes of water to a portion of the sample causes no precipitation even after prolonged boiling of the solution. The oxide of iron is completely precipitated by ammonia, as the ordinary hydrate of sesquioxide of iron. Contrary to what might have been expected, I find that the cautious addition of dilute hydrochloric acid to the diluted sample causes precipitation, which is accelerated upon boiling, and at the same time a small portion of the oxide is dissolved as ordinary sesquichloride of iron of a pale-yellow color. This precipitation takes place more quickly with dilute sulphuric acid, and much more slowly with dilute nitric acid. The hydrate which is precipitated by these acids is very much lighter in color than that which falls upon the addition of ammonia, and is probably a different hydrate. After precipitation by hydrochloric acid it requires a pretty large addition of the acid to redissolve the precipitate, and then the solution is only the ordinary chloride of iron, and much lighter in color than formerly, being now of a pale yellow. One cubic centimetre of the solution weighs 15.866 grains, or rather more than the gramme (15.434 grains). I find that 100 weighed grains of the preparation yield of anhydrous sesquioxide of iron 3.828 grains, and of chlorine only .207 grain. Now, .207 grain of chlorine are equivalent to .316 grain of anhydrous sesquichloride of iron. This last quantity contains .109 grain of metallic iron, which again are equivalent to .155 grain of anhydrous sesquioxide of iron. Deducting .155 from the 3.828 grains of anhydrous sesquioxide already found, there remain 3.673 grains of sesquioxide in solution, without any chlorine or anything else to maintain it so, except water. Probably under the peculiar circumstances the chloride acts as a catalytic body, and by its mere presence keeps the large amount of hydrate of sesquioxide of iron in solution, and probably also the hydrate is not the ordinary hydrate containing three molecules of water; but it quite possible that during the osmotic process the hydrated sesquichloride of iron containing twelve molecules of water becomes a similar hydrate by substitution, or perhaps is even more highly hydrated and so becomes soluble in water. The disparity between the chlorine and the iron is such that there seems to be little probability that they exist together as a compound, and it would appear very astonishing that so small a quantity of chlorine could hold in solution so large a quantity of iron, especially when the iron exists as hydrate of sesquioxide, and the fact is remembered that, so far as is known, the oxides and chlorides of this metal have always been found to be the analogues of one another. It would require a very great deal of very patient and laborious work to find out how this iron is kept in solution, if, indeed, it could be discovered and explained at all; but the fact remains that this is a very elegant preparation of iron, and that is all which the practical physician requires to know.

Analytical Laboratory, 45 South Diamond Street, Allegheny City, Pa., August 10, 1877.

NOTE ON THE CHEMICAL STUDY OF COTTON-ROOT.

BY JOHN K. FOULKROD.

ALTHOUGH the root of the cotton-plant has been used to some extent in the South and West, we are still in the dark as to its constitution; and the following notes of an investigation of it seem worthy of being put on record:

The bark of the root was reduced to a coarse powder, then digested in water strongly acidulated with sulphuric acid. It was then filtered, the liquid being of a red color. Ammonia was added until the precipitate ceased falling: the precipitate was of a purple color. The precipitate was collected, washed, and added to water acidulated with sulphuric acid, with the hope that it would form the sulphate of the alkaloid, if there should be one; but I was not successful. The bark of the root, reduced to a coarse powder, and macerated in water, was then thrown upon a filter; the filtrate was of a deep-red color; to this was added acetate of lead until the precipitate ceased falling. It was again filtered; the solution was treated with sulphuretted hydrogen gas to precipitate the lead, and was again filtered; the solution was evaporated over a water-bath, but I did not succeed in finding an alkaloid.

Being unsuccessful in finding an alkaloid, I then experimented for a resin.

A portion of the bark of the root was exhausted with alcohol. The tincture was of a deep-red color; it was then distilled to separate the alcohol. After removing the alcohol there was left a dark-red resinous mass. The resinous mass was removed, and reduced to a coarse powder. The resinous matter was found to be insoluble in alcohol, chloroform,

ether, and aqua ammoniæ, but soluble in a solution of caustic potassa.

A portion of the bark of the root was macerated in cold water, and the solution was tested for the following:

Tannic acid.—Sulphate of iron gave the blue-black color.

Starch.—Tincture of iodine gave the characteristic color of iodide of starch.

Vegetable albumen.—Corrosive sublimate and heat.

Grape sugar.—Sulphate of copper and solution of potassa.

The bark also contained a red coloring-matter, soluble in water, ether, chloroform, and alcohol.

When ammonia is added to a solution of the coloring-matter in water containing a few drops of sulphuric acid, it turns quickly to a deep purple. On adding a few drops of an acid it resumes its original red color. This action is somewhat like that of litmus.

REPORT OF CASES OF FEMORAL ANEURISM.

BY GEORGE S. HULL, M.D.

THE following cases are reported as exposing the means of treatment most favored in femoral aneurism by Professor D. Hayes Agnew, in whose service they occurred at the University Hospital:

Case I.—Joshua P., colored, æt. 36, native of the United States; was admitted on December 26, 1874, suffering from a fusiform aneurismal tumor about the size of a goose-egg. It was situated just below the apex of Scarpa's triangle, on the inner aspect of the thigh. It had been first noticed about six weeks before admission, and was believed to be of traumatic origin. The patient was kept at rest in bed, with the limb elevated, and put upon restricted diet, with the slight exhibition of tinct. aconiti rad.

On January 6, at 7.40 P.M., digital compression was commenced. At 1 A.M. of the following day, on account of pain, one-sixth grain of morphiæ sulph. was given by hypodermic injection, and at 7.30 P.M. pulsation in tumor ceased. The pressure was continued until 5.40 A.M. of next day, when the man was still in a good condition. Pulsation did not return, nor did any bad symptom arise from the treatment. He improved rapidly, and on the 16th was discharged, well.

Case II.—On the 14th of May, 1875, Dennis F., æt. 47, native of Ireland, was admitted. He was an active, robust, intemperate laborer. He stated that five months before, he noticed a small, pulsating tumor, about the size of a chestnut, in his right groin. On examination there appeared in that region a great bulging, constricted in the line of Poupart's ligament, which formed through it, near its middle, a slight sulcus. The outlines of the tumor could be made out as extending from two and a half inches above the middle of Poupart's ligament to two inches below it, and from one-half inch to inner side of anterior superior spinous process of ilium across to near the median line.

It was evident that the aneurism, besides being situated on the femoral, involved considerable of the external iliac, as most of its bulk was above Poupart's ligament in the abdominal cavity. He could assign no cause, except that eight or nine months before, while walking, he received a severe sprain of the ankle-joint, from which he was laid up and made to suffer very severe pain, extending up to the knee, and even shooting up the thigh.

The man was put at rest in bed, and on the 17th, at 7.05 P.M., an abdominal tourniquet adjusted, and compression commenced upon the abdominal aorta. At 10.45 P.M., on account of the great pain produced by the tourniquet, ether was administered, and at 12 o'clock compression ceased. As a result, there was a marked diminution in the strength of the pulsation, and the tumor felt much more firm and inelastic, the patient complaining of stiffness in his groin.

On the 22d, at 2.45 P.M., compression was resumed, ether being commenced at 3 P.M. At 6.45 tourniquet was eased up, and, there still being pulsations, it was screwed down again, and kept in position till 2.45 A.M. of the 23d. On removing the pressure the pulsation was quite feeble, and there was an apparent increase in the size of the tumor (likely on account of its true dimensions being brought out by the pressure of the solid clot forming in it). There was during the compression no marked fall in the temperature of the limb.

The patient was then kept quiet for a couple of days, and upon liquid diet, laudanum and lead-water being applied to surface of tumor, as he complained of pain. Although the pulsation seemed growing less, and the tumor firmer, it was thought best to resume pressure, applying it but a short time daily. Accordingly, on the 29th, ether was given, and the tourniquet kept in position one hour and ten minutes, after which the impulse of tumor was hardly perceptible. On the 30th all pulsation ceased, and the tumor felt quite firm and hard, the temperature of the limb being but little below normal. Kept quiet in bed, with limb flexed and elevated. On June 6 was discharged, cured.*

Case III., which came under the writer's observation, and which proved so interestingly obstinate, will be described somewhat more minutely.

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* The reports of these two cases are condensed from the notes of Dr. Wm. M. Mastin, of Mobile, then Resident Surgeon, by whom the directions of Dr. Agnew were carried to their so successful termination.

Thos. L., æt. 41, native of the United States. Since the age of fourteen has suffered much from rheumatism; otherwise his health has been good. Has taken alcoholic drinks but moderately, and has never contracted syphilitic disease. During the late war was much exposed. Is a tailor, and to his trade ascribes the cause of his affection; says the table over which he leaned for years cutting goods produced almost constant pressure in his right groin, and gave him at times much pain, and, this symptom increasing, he noticed about two years ago a small tumor in that region. The tumor during the first year grew slowly, but since then has increased rapidly in size, being at the present time about one-half larger than a goose-egg, and possessing to a marked degree the aneurismal bruit and thrill. It is situated upon the upper part of the femoral artery, its upper fourth pressing towards the abdominal cavity, seemingly under Poupart's ligament. He complains of occasional sharp pains shooting down to the knee, and, being of an extremely nervous temperament, worries much and sleeps poorly.

Sept. 2.—Having been at rest and upon nutritious, unstimulating diet for some time, treatment, consisting of pressure upon the abdominal aorta by means of the abdominal tourniquet, was commenced to-day. Complaining soon of pain, a hypodermic injection of one-quarter grain of morph. sulph. was given, and in one hour repeated. The pressure, which completely controlled the pulsation, was kept up two and half hours, being removed on account of the shock the patient was receiving. Aneurism still pulsated. The limb was secured in a flexed and elevated position, its temperature being 94° F., while that in the mouth was but 94¾° F.

Sept. 3.—Compression resumed; morphia failing to relieve pain in the course of an hour, ether was resorted to. After three hours' constant pressure, the tourniquet was removed on account of patient's weak condition, temperature in axilla being 96¾° F., in right popliteal space 92° F. Aneurism pulsated feebly, but as the heart regained its strength it followed suit and negatived the result.

Sept. 6.—Patient, after refusing treatment for several days, again submitted to compression for an hour and a quarter, but without any favorable result.

Sept. 7.—Tourniquet applied, under ether, one hour and ten minutes; pulsation undiminished. Temperature fell but ¼° in right limb. Taking nourishment well, and not losing much strength.

Sept. 9.—One-half hour after adjustment of abdominal tourniquet, liquor ferri subsulph. (℥x) was injected into aneurism; one-half hour later, the pressure was eased up very gradually. Pulsation returned, nor was any favorable change noticeable. Temperature of right limb fell but ⅕° F. Passed a comfortable night.

Sept. 10.—Abdominal tourniquet was placed in position, and a small horseshoe tourniquet applied to femoral below the aneurism. Pressure was made upon both points, and in half an hour ℥x of Monsel's solution again injected. In two hours abdominal pressure was very gradually removed, some pulsation returning; one-half hour later, femoral tourniquet was taken off, and another failure completed. At this time temperature of right leg was 94° F., owing, no doubt, to femoral tourniquet's interference with the collateral circulation. In the evening had a slight chill, temperature rose to 103⅕° F., pulse 116, and he passed a restless night.

Oct. 11.—Since last date abdominal aorta has been compressed twice without any favorable result. This morning sufficient pressure to almost stop the flow of blood through the aneurism being made upon the abdominal aorta, Dr. Agnew introduced six long and very fine acupuncture-needles into and through the tumor, in the form of a circle, the points converging. In half an hour pressure was increased so as entirely to stop pulsation, and in two hours gradually eased up; the aneurism recommenced pulsating with an apparently undiminished force. In the evening the abdominal tourniquet was again used, but without success.

Oct. 12.—The femoral tourniquet was used in the morning, and the abdominal in the evening, when, the patient refusing to endure more, the needles were withdrawn and the blood allowed to flow gradually through the aneurism, which soon pulsated with its former vigor.

Nov. 6.—On October 17, patient went to his home, to recruit and decide whether or not he would submit to ligation of the external iliac. Returned to-day, with his aneurism considerably increased in size, and, giving his consent to the operation, Dr. Agnew ligated the external iliac. The operation was complicated on account of adhesions made by the pressure of the tumor, which proved to be sacculated, the disease in the artery not extending above the femoral. During the operation the carbolic spray (1 in 40) was made use of, and the external iliac was tied with a double carbolized animal ligature, the ends being closely cut off. Lister's dressing was applied. The aneurism remained quiet, and in the evening the temperature in mouth was 102° F., right limb (wrapped in cotton) 101½° F., left, the same.

Nov. 9.—Has complained but little since operation, and both limbs have kept equal in temperature. Dressing was changed to-day, under carbolic spray; no suppuration.

Nov. 15.—Considerable gaping of edges of wound; beginning to suppurate freely. Tumor feels soft, and contents seem to be fluid.

Nov. 20.—A small black point has appeared on surface of tumor, and is extending. Patient suffering from exhaustion.

Nov. 22.—Exploring needle shows contents of sac to be a dark, thick, fluid blood.

Nov. 25.—Point of slough has increased to one-half inch in diameter, and is covered with a large clot, from under which there is some slight oozing.

Nov. 26.—This morning early, aneurism ruptured at point of slough, and a violent hemorrhage resulted; it was controlled by the femoral tourniquet, proving it to come up from below (the abdominal tourniquet, which was screwed down first, failed to influence the flow of blood). Dr. Agnew arrived, and preparations were made to ligate the femoral; on removing the tourniquet, and a violent hemorrhage taking place, he laid open the entire sac, and, plugging the patulous vessels below with a towel, cut down on the femoral and tied it; on removing the towel, blood still flowed from the sac, and it was found necessary to ligate the profunda. Hemorrhage now ceased, and the patient lay back exhausted; he continued to sink, soon became unconscious, and in a half-hour passed beyond the effect of stimulants, etc. When he ceased being able to swallow, and became unconscious, hypodermic injections of whisky revived him sufficiently to permit of his recognizing his mother, but soon lost their effect.

A general *post-mortem* was not allowed, though permission was given to examine at the seat of operation. The aneurism proved to be sacculated, spreading chiefly upwards and outwards, with its base extending from juncture of external iliac and femoral down to profunda, and involving it. There were no indications of a clot having formed in the sac, and its walls were at some places quite thin. On looking at the seat of ligation, the closest examination failed to detect any trace of the double animal ligature: it had cut its way completely through and then disappeared. A portion of the artery above the seat of ligation was removed; its walls were contracted, and its coats, especially the intima, very much thickened, by which conditions the calibre of the vessel was very much diminished, though not entirely obliterated, as a small probe could be laid in it. (There was no hemorrhage from this point during life.)

Remarks.—In this last case the complete failure of the means so successful in the other two cases might be ascribed to a want of the plastic or coagulable element of the blood. The patient had been for some time in bad health, the result of exposure and malaria; he also was a sufferer from hemorrhoids, and was of an extremely nervous disposition, almost hysterical. The injections, needles, and finally the ligation, failed also, and went further to prove the poverty of the blood in this important property.

In these, as well as other cases found in the hospital books, compression, both digital and instrumental, has been the means most favored in the treatment of aneurisms. Where there is a choice, digital compression is much to be preferred; collateral circulation is less interfered with, and the small amount of blood which escapes the fingers and flows through the aneurism helps to keep up the temperature of the limb, besides favoring the deposit of a laminated clot, which, being deposited slowly, is more firm and serviceable than the large soft clot produced by a sudden and complete stoppage of the circulation through the aneurism by means of the tourniquet, etc.

When digital compression cannot be used, instrumental pressure employed for a short time, and at intervals, may accomplish the same good result as in Case II., where each compression increased the firmness of the tumor till it finally ceased pulsating in the interval between the compressions. The use of the tourniquet, however, is not a little dangerous, especially when it is applied for a long time during the first compression, death of the limb being the more than possible result, while digital compression seems almost harmless, even when persisted in for a long time. Only a few days ago a case came to my knowledge where digital compression was kept up constantly for three days, with a successful termination; and there have happened in Dr. Agnew's ward, within the last year or two, three cases of popliteal aneurism where perseverance in digital compression brought about a successful issue.

In cases where ligation of the artery supplying an aneurism fails to produce a clot, as in Case III., the contents remaining fluid and blood entering the sac from below, it would seem advisable to ligate the artery leading from the aneurism as soon as the collateral circulation was sufficiently established not to endanger the life of the limb.

WATERPROOF PAPER.—A nice article, transparent and impervious to grease, is obtained by soaking good paper in an aqueous solution of shellac in borax. It resembles parchment paper in some respects. If the aqueous solution is colored with aniline colors, very handsome paper for artificial flowers is procured.

TRAUMATIC NEURITIS INVOLVING THE BRACHIAL PLEXUS.

BY CHARLES K. MILLS, M.D.,

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THE following case, which was observed at the Hospital of the University of Pennsylvania, in the service of Professor H. C. Wood, is of considerable interest because of its severity, peculiar character, and the favorable result of treatment.

J. D., aged 32, two years before coming under observation, had his left arm caught in a belt and was carried several feet from the floor. The arm was broken about the wrist, the middle of the forearm, and near the shoulder. It was also badly twisted, and since the accident had been entirely helpless. He could not move the arm, forearm, or hand in any direction. On attempting motion, pain and violent tremor would ensue. He carried the hand in a sling. The limb was somewhat wasted, but did not present the extreme atrophy which is noticed in some cases of spinal or nerve injury.

From an irregular line around the arm about two inches above the elbow, a district of highly-marked hyperæsthesia extended upwards, including, when he was first seen, the outer part of the shoulder, and afterwards spreading until it embraced the left breast, side, and back, in the scapular and suprascapular regions. He had constantly considerable pain in the hyperæsthetic area, and touching or handling him gently would cause extreme suffering, and bring about fibrillary twitchings in the thoracic muscles. The pain and hyperæsthesia usually got much worse in the evening and during the night.

From the line of demarcation, two inches above the elbow, downwards the limb was anæsthetic. Analgesia, or loss of the sensation of pain, seemed complete. Compass-points could be jabbed into his forearm and hand with impunity; and to the same parts a strong faradic current could be applied without causing the patient any pain or inconvenience, unless the application was so made as to jar the entire limb. Electro-contractility was good. The skin was pale and smooth-looking.

The third and fourth dorsal vertebræ became tender to pressure while the case was under notice; and when at its worst, slight hyperæsthesia was present on the *right* side of the spinal column, in the scapular region.

This patient had been subject to epileptic seizures for twelve years. They were supposed to have originated from sunstroke. Since the accident to his arm they had been less frequent and less severe. He had never had any form of venereal disease.

The treatment pursued in this case has extended over nearly ten months, and will be briefly summarized. Bromide of potassium was given, mainly with the view of controlling the epileptic attacks. Iodide of potassium and the bichloride of mercury were administered for several weeks. At one period he was blistered over the dorsal vertebræ, and later the actual cautery was repeatedly applied. Morphia was sometimes used by the mouth or hypodermically. Galvanization of the hyperæsthetic district was employed. A weak current, usually from about five cells, was employed, applying one rheophore, generally the cathode, to the cervical spine, and the other to the affected region. The application nearly always relieved temporarily the pain and hyperæsthesia.

Six months after coming under treatment the patient was, on the whole, rather worse than when first seen, although he had several times temporarily improved. He was then ordered to use by inunction upon the arm and shoulder about a drachm daily of a prescription containing equal parts of ointments of mercury, of iodine, and of belladonna. Four weeks after beginning this treatment the pain left his arm and side, the hyperæsthesia and anæsthesia also rapidly disappearing. He steadily improved, and has now, nearly three years after the accident, made a complete recovery from the neuritis. The motions of the shoulder, arm, forearm, and hand, have all returned, and under faradization the muscles are all rapidly regaining tone and strength. A few days after the improvement set in, his mouth began to show signs of mercurialization; but the inunction was continued until well-marked salivation was produced. Chlorate of potassium and cinchona were subsequently employed to relieve the ptyalism.

Remarks.—In this remarkable case some of the great branches of the brachial plexus were probably severely injured, by torsion, tearing, or pressure, at the time of the accident. The neuritis which was set up seems to have radiated to nearly all the nerves of the plexus, as well as to other nerves, and involved, to a limited extent, the spinal cord. The neuritic process even appeared at one time to have extended across the spinal cord to the right side. The inflammatory condition of numerous nerves and their branches was doubtless the cause of the pain and hyperæsthesia, while the total anæsthesia below can be explained on the view of Niemeyer, that inflamed nerves are bad conductors, and hence convey peripheral impressions incompletely, or not at all, to the brain. Whether the cure was spontaneous, or the result of the treatment by inunction, the

reader may judge for himself. For myself, I believe that it was in great part, at least, due to the treatment. According to Erb, the sovereign remedy for all the more chronic forms of neuritis is the galvanic current; and I have myself found it of great service, both as a palliative and curative agency. In the case just reported, galvanization with a weak current would relieve the pain and hyperæsthesia more effectually and for a longer time than any other remedy; but it was difficult to carry out the electric treatment with absolute regularity, and to include every portion of the wide neuritic area in each application.

NOTES OF HOSPITAL PRACTICE.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

CLINIC OF DR. JOHN T. DARBY.

Reported by Dr. P. B. Porter.

AFTER a few introductory remarks, Dr. Darby spoke somewhat as follows: I commence the lecture to-day, gentlemen, by showing you the result of an operation for the removal of scirrhus of the right breast, which some of you saw me perform not long since. The diagnosis of scirrhus was easily made from the clinical signs characteristic of that affection, and after the extirpation of the tumor its correctness was demonstrated by a careful microscopic examination made by Dr. Arnold. It is always satisfactory to have the "endorsement" of the microscope in such cases. In removing these malignant growths with the knife it is my constant practice to cut well into the surrounding healthy tissue, so as to be sure that the entire mass is gotten rid of. I then invariably leave the wound entirely open, and thus allow granulation to take place, washing the part with a solution of chloride of zinc. This idea I obtained from Mr. Campbell Morgan, who has probably had a larger experience in this department of surgery than any other living authority. It is just the opposite plan from that which I would have pursued if the tumor had been benignant; for in that case I should have closed the wound immediately, with the object of obtaining union between the two surfaces as rapidly as possible. In the present instance, when the wound began to granulate, it afforded a very good opportunity for skin-grafting, and this has been employed here with excellent effect; and while the amount of raw surface was formerly as large as my hand, you now see that the cicatrix is scarcely two inches in extent in one direction and an inch and a half in the other. The little papillæ observable upon its surface are merely exuberant granulations, or proud flesh, and these I will touch with a pencil of nitrate of silver.

I am of the opinion that the cancerous disease has been entirely eradicated in this case, and that our patient has as good a chance of a long life as any other woman. Still, as the growth may possibly return, as sometimes happens, we will be on our guard and watch carefully for the signs of any new development of the trouble.

To-day I attended the funeral of a patient of mine (this, of course, is not a pleasant thing to do, but you will get accustomed to it), who had extraordinary infiltration of the tissues of the arm, shoulder, and chest-walls, and enormous enlargement and induration of all the axillary, cervical, and other glands, as the result of scirrhus of the breast. She went to a quack last September and had the tumor extirpated by means of caustics. After that she believed herself entirely cured, and it was not until the day before her death that she could be persuaded that she was really suffering from cancer still. Yet it was decidedly the worst case that I have ever met with in all my experience. The immediate cause of death was effusion into the pleuræ, dependent, like the other infiltrations, upon the carcinomatous disease.

The next patient I have to bring before you is the young girl upon whom, as you will doubtless remember, I operated for the relief of the contractions caused by a very severe burn of the palmar surface of the hand. She is looking bright and well, as you see, because she is now free from suffering; but the operation has not been a success, owing to the manner in which the after-treatment was carried out. The patient was placed under the care of two gentlemen of the class, who were so zealous in attending it that they succeeded in producing mortification by bandaging the part too tightly. It was, consequently, with the greatest difficulty that we could

save the hand at all; and, of course, all measures to maintain it in the position which had been secured by the operation had to be given up. I always like to show results, whether our efforts are followed by failure or success. A little later I trust that we will be able to do something more for this girl, so that she can abduct the thumb and adduct the little finger, which it is now impossible for her to do.

This man has also been at the clinic before, and is suffering, you will remember, from gelatinous nasal polypi. He came here with both nostrils filled with them, and at that time they were entirely removed. But this condition is difficult to cure, unless we resort to two or more operations; differing in this respect from the ordinary fibroid polypus. The procedure is simple enough, however, consisting merely in the breaking down and removal of the gelatinous masses by means of the forceps.

The next patient is a heavy-built individual, who, as his appearance indicates, is given to not infrequent sprees and the rows and quarrels which so commonly result therefrom. In one of these pleasant little encounters a friendly companion knocked him down and then affectionately bit a good-sized piece out of the end of his nose.

The operation which I propose for the correction of the deformity occasioned by the loss of the tip of the nose is as follows. I shall first make a deep incision in the face just beyond the ala of the nose, so as to allow greater mobility of the cartilage and a more perfect approximation of the surfaces to be united; and in doing this I may possibly cut the angular artery, though I shall avoid doing this if I can. Then I shall clip away all the cicatricial tissue left by the healing up of the wound, and bring the healthy parts on its two sides in apposition by means of suture. The material of which the sutures are composed should be one which is not absorbed, such as silver wire or horse-hair; and I prefer the latter, on account of its cheapness and delicacy. The hair should be taken from the mane and not the tail, and it should be used with a fine conjunctival needle, which will occasion the minimum amount of irritation and probably obviate the setting up of any inflammatory action.

We now proceed to etherize the patient; and you perceive that it takes a considerable time to bring him under the influence of the anæsthetic,—which is always a difficult thing to do in the case of men of his class, who drink a great deal. This accomplished at last, I make the incision of which I spoke, about an inch and a half in length, and now, you see, I have dissected up the tissue until I can get my finger completely under the ala of the nose. Then I begin to pare off the cicatricial tissue left by the bite, first using the scalpel and then the scissors; and you have no idea how hard this cicatricial cartilaginous tissue is to cut. At length I have succeeded in making a bigger hole in the man's nose than he had there before; and this is done, as I explained, in order to get healthy tissue for the surfaces that are to be approximated. Finally, I pass my sutures, three in number, and make them quite deep, so as to secure good union. A plug will be placed in the incision by the side of the nose, for the purpose of preventing too great suppurative action, and then two strips of adhesive plaster, one passing to the opposite cheek and the other up to the forehead, will be applied, to assist in keeping the parts in position. If our patient doesn't get off on a frolic, he will doubtless have a very good nose as the result of the operation; and it will take from two to three weeks for the completion of the healing process.

TRANSLATIONS.

Lupus of the Vulva.—Under the title *Esthiomène de la Vulve*, Siridey (*Centralbl. f. Med.*, 1877, p. 224; from *Ann. de Gynéc.*) gives the case of a woman, 29 years of age, who was accustomed to indulge in sexual intercourse to excess, and at the same time was very dirty in her habits. About a year before coming under S.'s observation she was obliged to give up intercourse on account of the pain and bleeding which it caused. Small watery blebs developed upon the labia, accompanied by intolerable itching. When scratched they became confluent, the parts became swollen so that the patient could not walk. Small wart-like prominences appeared on the infiltrated skin, while a large ulcer appeared on the inner surface of the vulva. The internal genitalia were not affected. The treatment consisted of good food, cod-

liver oil, preparations of iodine, and sulphur baths. The ulcer was touched, first with tincture of iodine, then with chromic acid, and finally with iodoform. Entire cure resulted. x.

Subcutaneous Injections in Hæmoptysis.—Dr. Jos. Hirschfeld (*Wien. Med. Presse*, 1877, p. 724) alludes to the various methods used to combat bleeding from the lungs. Cold acts reflexly in contracting the vessels and restricting their lumena, and thus aids the formation of a thrombus. Swallowing bits of ice is preferable to the external application of cold. Whatever be the therapeutic means employed, it is aided by deep inspiration and holding the breath, on the patient's part (except when the bleeding occurs from a cavity). The compression exerted by the forcibly inspired and retained air exercises undoubtedly a certain pressure upon the vascular walls and the gaping wound. With this object, Hirschfeld causes the patient to suck a cooling drink, slowly, through a glass tube. The forced inhalation of astringent medicines has not succeeded so well as was expected. Where it has acted well, this is probably because of the deep inspiration accompanying. Styptics, like alum, acetate of lead, tannin, chloride of iron, etc., which reach their destination only after digestion, are of little value, and not unfrequently upset the stomach. Among narcotics, digitalis is most important; in increased cardiac action, and particularly in cases where an uncompensated cardiac deficiency is at the bottom of the trouble, it is a useful though slowly-acting remedy.

The sovereign agent in hæmoptysis, however, is ergotin, which, as is known, acts as a vaso-constrictor. For this use of ergotin we are indebted to Drasche, who recommended its hypodermic use in 1871. Aside from the rapid and active action of this agent, when employed in the manner mentioned, every physician knows how difficult it frequently is to get a patient suffering from hæmoptysis to take anything by the mouth: a remedy which can be kept always ready and can be administered hypodermically is therefore a prize. Ergotin is best administered in glycerin solution (1 to 10). After the injection considerable sensitiveness exists about the puncture, followed by a sensation of warmth, and slight reddening, which disappears in the course of eight or ten hours. It is well known that patients who suffer from repeated attacks of hæmoptysis are found in a condition of marked psychological excitement, since they well know the risk they run. This psychological disturbance allows the patient to rest with difficulty or not at all: this rest is, however, very necessary, if the hemorrhage is to be controlled. In addition, there is also the irritation of the blood poured out, which is loosened by repeated attacks of coughing, thus keeping up the hemorrhage and preventing the closure of the vessel by a thrombus. In order to avoid this, H. is accustomed to precede or accompany the ergotin injection by one of morphia. Under the influence of the latter, rest and the resultant quiet of the parts ensue, and the ergotin is enabled to exercise its hæmostatic influence to the best advantage. x.

Arsenic in Malignant Lymphadenoma.—Dr. Winiwarter (*Wien. Med. Presse*, April 29, 1877; from *Med. Jahrbücher*) regards arsenic as the most efficient remedy yet employed for the relief of this usually fatal malady. In most cases it has the effect of lessening the size of the enlarged glands, both on the surface and in the interior of the body. The best effects are to be hoped for from the internal use of the remedy combined with its employment in the form of parenchymatous injections into the enlarged glands.

W. usually gives Fowler's solution in connection with iron (the dialyzed oxide), in small doses (gtt. 2 to 3) at first, gradually increased in order to prevent upsetting the stomach. The dose may be increased by one drop every second or third day. W. has run the dose gradually up to as much as twenty-five to thirty drops thrice daily, before perceiving any symptoms of intolerance, and has then been able to combat the latter by the addition of minute amounts of tinct. opii.

After reaching this maximum it is better to decrease the dose; but this should be done gradually. The parenchymatous injections are to be made with simple Fowler's solution, in small quantities at first, later as much as one-third syringeful once or more daily. When these injections give rise to considerable local pain, as is frequently the case, hot fomentations may be applied to the affected part. One of the few discomforts attending the prolonged use of arsenic is sleeplessness; this may be prevented ordinarily by taking

a glass of beer at bedtime, or, if this is insufficient, a few doses of bromide of potassium, thirty to fifty grains daily. Occasionally skin eruptions follow the use of the arsenic, and a certain intermittent form of fever is a usual accompaniment of the treatment. The good effect of the arsenic lasts about a year, but relapses yield readily to this medicine.

Subcutaneous Injection of Carbolic Acid.—Mader (*Centralbl. f. Chirurgie*, No. 24, 1877; from *Pester Med. Chir. Presse*) injected under the skin of the back of his hand a syringeful of two per cent. solution of carbolic acid. At the end of a few seconds he began to experience a sensation of burning; then followed a feeling of tingling, which spread quickly from the point of injection to the inner surface of the corresponding finger. Anæsthesia of the back of the hand remained very decided for some hours. Two hours after the injection a tolerably strong faradaic current was passed through the limb without arousing any sensation. Subsequently Mader practised injections of the same kind in twenty-three cases of rheumatic arthritis, over the affected joints. In three very feverish patients the effect of the first injections was surprising, pain and swelling rapidly disappearing; later relapses yielded to the injections. In the apyretic form of the affection improvement as regards pain took place in eleven cases after the injections, in six cases the effect was doubtful, while in one the patient became worse. Chronic swellings of the joints were in no case removed. In six cases of neuralgia of the ischiatic remarkably good results were obtained. In muscular rheumatism, pleuritic pains, in pneumonia and pleurisy, the injection of carbolic acid exercised a very quieting effect. On the other hand, no beneficial result was obtained in erysipelas migrans, the affection overstepping the boundary and spreading about over the injected locality with the same rapidity as elsewhere. x.

Shock.—V. Nussbaum (*Centralbl. f. Chirurgie*, 1877, p. 328) asserts that for very many heretofore obscure cases of unexpected fatal collapse after operations a satisfactory explanation may be found under one of the following heads.

1. Acute sepsis, particularly from contact of large actively-absorbing surfaces with septic fluids. Experience in ovariotomy and striking experimental researches give good grounds for this. 2. Acute anæmia after severe hemorrhage, particularly in weakly and old persons. 3. Fatty emboli, particularly of the capillaries of the lung after extensive splintered fractures. Especially in very strong people death may occur in this way occasionally, with symptoms of severe sudden dyspnœa. Finally, that chilling of the omentum experimentally proved by Wagner must be particularly referred to as a cause of fall of corporeal temperature, with the resulting symptoms elsewhere referred to, in operations within the abdomen. Acute sepsis and paralysis from chilling may be best combated, according to V. Nussbaum, by careful antiseptic procedures and the prevention of chilling by means of warm applications. By way of example, V. N. cites a case of laparotomy on account of intussusception. The operating-room, the antiseptic solutions, and the bandages, etc., were all warmed. The patient's body was wrapped in warm coverings. In addition the constriction was loosened as quickly and with as little exposure as possible. Perfect cure was the result. Since regard to the rules of procedure mentioned is likely to lead to the most favorable results in operations of the kind, V. Nussbaum even goes so far as to express the hope that one of these days the radical cure of hernia may be effected by opening the abdomen and sewing up the internal ring from within. x.

Chancre of the Cervix Uteri and Vagina.—E. Klink (*Centralbl. f. Chir.*, 1877, p. 347; from *Vierteljahrrs. f. Dermat. u. Syphilis*) remarks on the rarity of this affection in the localities mentioned, and gives eight cases coming under his own observation. In the fifth case (chancre of the cervix), the seventh case (ulcerating tubercle of the vagina), and the eighth (ulcers of the cervix and vagina), general syphilis followed. In connection with these observations the author makes some remarks relative to the etiology, diagnosis, symptomatology, prognosis, and therapeutics of the affections mentioned. He very properly points out that in the case of very many women, even the most frequent and careful examination fails to reveal a chancrous induration, or at most occasionally soft sores or only undecided patches of erosion, which remain soft, but which are nevertheless followed by general syphilis. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 1, 1877.

EDITORIAL.

MUCH ADO ABOUT NOTHING.

A WEEK or two ago there occurred in this city a circumstance, trifling enough in itself, but which has been so magnified and distorted by a portion of our daily press that it seems to demand some notice at our hands. The facts, stated with the greatest possible brevity, are these:

The managers of a benevolent institution situated in West Philadelphia, and entitled a Home for Aged Colored Persons, wished to remove one of its inmates, who had become demented, to the insane department of the almshouse. Two homœopathic physicians accordingly gave a certificate of insanity, and the patient was taken to the almshouse, but was refused admission, as a rule of the Board of Guardians of the Poor, which requires that all such certificates shall contain the name of one of their district physicians, had not been complied with. The Secretary of the Board of Managers of the Home then called on Dr. Mullen, who is in charge of one of the West Philadelphia districts, and, not finding him in, left word that he would return in the afternoon, but failed to do so. Later in the day Dr. Mullen was called out professionally, and on his return at 10 P.M. found the certificate awaiting him. On the following morning he went at once to the office of the Secretary, obtained the necessary information about the patient, and proceeded directly to the Home to attend to the matter, but on his arrival there was informed that during the night the patient had escaped from his room to the roof of the house, had fallen thence and was killed.

One would suppose that in connection with this recital there was little to excite either interest or criticism, unless it were the negligence which allowed an insane person the opportunity to do himself such damage; but the summer editors of some of our dailies, eager for items,—"unawed by influence and unbribed by gain,"—have seen fit to take a different view of the matter. It was said that the Puritans hated bear-baiting, not because it gave pain to the bear, but because it gave pleasure to the spectators; and in the dozen or more articles which this affair has called forth, a similar feeling has, with one exception, seemed to actuate the writers. The Board of Guardians has been severely censured for the existence of a rule—thoroughly benevolent both in intention and operation—which requires the supervision of each certificate of insanity by a reputable physician, and consequently diminishes the power for mischief of the quacks with which the country is flooded. The district physician has been accused of refusing to sign the certificate because the other signatures were those of homœopaths, and of thus sacrificing a life to a point of professional etiquette,—an assertion which may be characterized simply as a deliberate falsehood, the origin of which it is not difficult to surmise. Dr. Mullen paid prompt attention to the matter at the earliest possible moment after it came to his notice, and in the only manner consistent with the rules of the Board of Guardians and the law of Pennsylvania.

He has been subjected to much unjust and, doubtless, annoying criticism, which should entitle him to the support of those members of the profession who may have it in their power to correct the misstatements which have been circulated.

The affair has been made the pretext for several disquisitions as to the relative standing of homœopaths and regular physicians and for many unfriendly squibs as to the "bigotry" and "intolerance" of the latter. This question has been recently discussed in these columns, but is entirely foreign to the point at issue, no collision having occurred between what the homœopaths delight to call the "two schools,"—

an assumption of equality as unfounded as it is offensive.

It would seem that these expounders of "vain wisdom and false philosophy," whose claims to be considered members of a learned profession rest entirely on legal grounds, are never so happy as when some pretended slight enables them to assume the rôle of martyrs before a non-professional audience. By parading their fancied wrongs they seek to disguise their genuine insignificance and to secure sympathy as having been persecuted for opinion's sake. Their most recent attempt has been more than usually successful; but we trust that those journals which have been misled will have the fairness to make the necessary corrections.

THERE are in Vienna two chief centres of clinical instruction, which are in a measure rivals, and between which considerable feeling is said to exist. These two institutions are the Poliklinik and Allgemeines Krankenhaus, the first being solely a large dispensary, the latter a general hospital. In a late issue of this journal, through an inadvertence, Dr. Monti's service was attributed to the Allgemeines Krankenhaus; whereas he has no connection with that institution, but is among the chief attractions of the Poliklinik.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, JUNE 28, 1877.

THE PRESIDENT, Dr. H. LENOX HODGE, in the chair.

Aneurism of the aorta. By Dr. E. E. MONTGOMERY.

M. S., æt. 57, native of this city, married, mother of sixteen children, always healthy, and a hard worker. Her husband was a drunkard, whom she had supported for the last twenty years, receiving in return only abuse. She has had a slight cough ever since her change of life, which was two years ago. During the last three weeks the cough has been more severe, of a rasping character, accompanied by expectoration and pain in the neck. Appetite poor, but no difficulty in swallowing.

I was called to see her on the evening of the 17th of April. She complained of difficult breathing, a severe rasping cough, some pain in the neck, and headache; pulse was rapid and feeble; right side of neck seemed more prominent than left. Placing my hand upon it, I found pulsation so distinct as to raise my fingers. The tumor filled up the space between the trachea and sternum. No bruit could be heard, on account of the noisy respiration. My diagnosis was aneurism of the arteria innominata, and I ascribed the cough to the pressure of the tumor upon the trachea. To deaden the irritation of the air-passages she was given a cough-mixture containing morphia, spt. chloroform, and lemon-juice, and ten drops of tr. digitalis three times daily, to quiet the heart. At my next visit I found her much more quiet. April 22, gave potass iod. gr. v t. d. April 26, I was sent for in great haste, and, upon my arrival, found her dead. Her death was not attended with any struggle or increased difficulty of breathing.

Autopsy, twenty-four hours after death, assisted by Dr. Abel Price, U.S.N.—Upon opening the thorax the lungs were found healthy, excepting a slight emphysema. Blocking up the superior part of the thorax was an aneurismal tumor. It had eroded the upper part of the posterior surface of the sternum over a space two inches in diameter through one-half the thickness of the bone. The eroded surface of the bone formed the anterior wall of the tumor, the arterial coat being entirely removed. Removing the parts in connection with the heart, the aneurism was found to spring from the beginning of the arch alongside the arteria innominata. Between it and the heart a portion of the aneurism was filled with a coagulum. The whole arch of the aorta was found dilated, and its coats had undergone atheromatous change. The coagulum extended into the left ventricle, so that more than likely the attempt to produce coagulation but served to hasten her end.

Otitis media purulenta, mastoiditis, and pyæmia. By Dr. A. S. REYNOLDS.

J. B., age 30 years, male, previous to a recent attack of pleurisy had enjoyed excellent health, excepting occasional dyspeptic symptoms. There is no history of syphilis; his personal habits are good. General appearance indicative of the lymphatic temperament.

He was admitted to the Presbyterian Hospital, April 11, 1877, for violent pain in and about the right ear. The patient states that he has suffered intensely for the past two weeks with great pain in the ear; that the auricle has been swollen out from the head, and that the parts about the ear have been greatly congested and swollen; he has not had recently any "cold in the head" or sore throat.

When admitted, there was no displacement of the auricle; there was constant pain in the ear, of a boring and shooting character, the pain darting forward over the right brow; the mastoid region was red and tender on pressure; pain in this region constant. There was a copious discharge from the ear of a thin, amber-colored, semi-transparent fluid, having a very offensive odor.

The intellect of patient was clear; headache confined to the right side,—dull and aching over the mastoid, acute and lancinating over the temporal region; pupils normal; tongue clean; appetite good; no febrile reaction.

Inspection of the ear revealed perforation, *i.e.*, destruction of the membrana tympani; Eustachian tube pervious to Valsalva's inflation; hearing reduced to a few inches for the voice and immediate approximation for the watch.

There was at no time any œdema of the face or neck, or any evidence of implication of the cervical veins or of the cranial sinuses.

Free leeching over the mastoid gave no relief to the pain, which continued to increase. Twenty-four hours later the face was flushed, tongue coated, slight febrile reaction, pain intense; and, as there was no abatement of these symptoms, the mastoid process was perforated, April 14, by Dr. C. H. Burnett. As there seemed to be some hypertrophy of the process, the perforation was made about half an inch lower, *i.e.*, nearer the tip, than is usual. The incision made was one-quarter inch behind the auricle and one and one-quarter inches long; the surface of the mastoid appeared normal; the periosteum was dissected up, and the outer wall perforated with a conical drill at a point about one-half inch above the tip of the mastoid. The mastoid cells were reached at a depth of one-fifth of an inch, and a small amount of cheesy pus was removed with the drill. A small branch of the posterior auricular artery was cut and ligated. The following day there was less pain in the ear; pain in forehead and right brow gone.

Forty-eight hours after operation there was free superficial suppuration; complained of stiffness of right side of neck. There was slight fever, increasing until evening of fifth day, when the temperature was 102$\frac{2}{5}$°, pulse 108, but subsiding gradually until the tenth day, when the temperature was 98$\frac{3}{5}$°, pulse 88. On the fifth day there was some photophobia, and he complained that any noise excited headache.

From this time the discharge from the ear grew less and became purulent, closely resembling that from the wound; the incision of soft parts began to heal, the perforation in the bone persisting.

He improved steadily until the 24th of April, ten days after mastoid perforation, when he was allowed to be out of bed, and that evening complained of nausea and pain in region of liver; temperature rising, reaching 104$\frac{3}{5}$° during the evening of April 25, when he had a violent chill and complained of an intense frontal headache; pulse 116, full and bounding, tongue dry and coated, bowels open.

From this time there was constant nausea, matters vomited being ingesta and mucus, tinged with bile; pain in right hypochondriac region increased, with tenderness on pressure. He was delirious at times after the 27th; he had hiccough; the pulse became weaker and more rapid, and respiration quick and jerking. Died April 30.

Post-mortem examination, made fifteen hours after death.—Incision made from top of sternum to pubes; the abdominal cavity first laid open; the omentum *in situ propria*, but darkened by venous injection, and at its upper dextral side thickly studded with flakes of recent lymph. The stomach, of normal size, containing about two ounces of gastric juice, was coated externally by patches of lymph over the fundus, and at its pyloric end was adherent to the under surface of the liver. The duodenum was so firmly adherent to contiguous viscera and so softened that it was torn in attempting to remove it. The gall-bladder contained about an ounce, which, being pressed out through the seemingly pervious duct, presented itself as a greenish-red frothy bile. The liver, externally, was covered with yellow spots (peripheral abscesses) varying in size from one-quarter to one inch in diameter. The upper surface of the liver was free; the under surface adherent to the stomach. The peritoneum of the right hypochondriac and epigastric regions was covered by patches of lymph, all the viscera of these regions being matted together. The spleen normal, excepting slight adhesion to the diaphragm; contained no abscesses.

The kidneys were normal; the right lung adherent over its whole surface by recent pleuritic adhesions; the left lung normal, excepting the presence of a small abscess on the outer side of the lower lobe, of about one-half inch in diameter and surrounded by a hardened zone, the whole mass being about one and one-half inches in diameter.

The heart had on the exterior of the left ventricle a patch of lymph two inches long and an inch wide. The sac contained about four ounces of a clear serous fluid.

The liver was found to be perfectly riddled throughout with abscesses.

The point of incision was found to have partly healed from below upward, about three-quarters of an inch remaining open; from this point there was no external evidence of implication of any contiguous tissue.

The brain was seemingly normal, and there was no evidence of implication of the cranial sinuses.

The cerebral surface of the temporal bone

of the affected side was slightly darkened, and the dura mater of this side less firmly adherent than over the normal side.

The tympanic cavity and mastoid cells were filled with a cheesy cholesteatomatous mass; ossicles present; membrana tympani gone. There was great hyperostosis of the outer table of the mastoid portion; it was one-half inch thick at a point three-quarters of an inch behind the external auditory meatus. There was no necrosis of any part of the temporal bone; there was no implication of the internal ear, so far as could be ascertained. There was no sign of phlebitis, nor of thrombosis in the sinuses of the brain, nor in any of the veins leading from the tympanum.

The cheesy mass in the mastoid cells was lying against the mastoid surface of the bony canal in which runs the lateral sinus; but there was not the slightest change in the bony structure of the canal, nor was there any diseased spot in the cerebral surface of the temporal.

So far as the disease of the ear and the temporal bone is concerned, the case must be regarded as one of chronic purulent inflammation of the tympanum and mastoid cells, leading to a clogging of the latter with a cholesteatomatous mass, and to a hyperostosis of the mastoid portion of the temporal bone. The pyæmic embolism may have been due to the escape of some of the epithelial and purulent débris from the tympanum into the circulation.

Dr. Chas. H. Burnett said there were several features of interest in the case. Of course his chief interest was in the success of the operation. The incision he made was behind the ear and reached the bone at the thickness of the skin. The external table was healthy, and the mastoid process was perforated by means of a conical drill. The operation as a mastoid perforation he thought might be regarded as successful. The man had so far recovered that it was thought to be a case fit for the infirmary, and he was about being discharged from the hospital, when he was suddenly attacked with nausea and the other symptoms detailed in the history of the case.

He died of pyæmia due either to washing away of some purulent débris from the tympanum into the circulation or from the small abscess of the neck; but, although in the latter there had been pain and it had attracted attention during life, the man was apparently, in every sense of the word, a well man when he was attacked with nausea and chill. It is well known that these cases of chronic suppuration of the ear terminate in pyæmia, but more frequently from meningitis and thrombosis in consequence of direct communication with the meninges. He recalled the case of a boy in which there was a clot extending into the jugular vein, and the boy died of well-marked symptoms of pyæmia.

Dr. John Guitéras asked whether simple inflammation of the diploë of the mastoid process could cause this trouble.

Dr. Burnett said certainly this could be the case, and doubtless is the case in many instances, although, as a rule, observers are not obliged to look for the cause in the inflammation of the diploë, sufficient cause being found in inflammation of the brain-substance. It is interesting to compare the thickness of the outer table in disease with that of health. Schwartze says that the outer table is one to three millimetres thick ($\frac{1}{25}$ to $\frac{3}{25}$ of an inch). Green, of Boston, in writing of hyperostosis of the mastoid, speaks of a thickness of the outer table of one-quarter of an inch as abnormal. In four cases of abnormal thickening the thinnest was one-quarter of an inch and the thickest over one-half inch. The normal bone presented for comparison is evidently of smaller size than the diseased bone exhibited, which was one-half inch thick.

Dr. Burnett thought it could be stated somewhat in this way. In pyæmia from mastoid disease there is generally found abscess in the brain, or some cerebral symptoms which would, of course, become prominent, as headache, dulness of intellect, convulsions, etc., and the case has a rapid and fatal termination. In a case he saw a short time ago, in which there was no cerebral abscess, the symptoms were of the usual lingering character.

Dr. Henry said it was probable the *physical* properties of inflammatory products might be of influence in the production of pyæmia. In the case under consideration these were of a cheesy consistence, and the pyæmia was probably caused by the entrance into the lymphatics of small solid particles, which, in their onward course, entered the blood-vessels and obstructed the capillaries of the organs involved, and so gave rise to the abscesses. To attribute them to an inflammation of the lining membrane of a vein or blood-sinus affords a far less plausible explanation, as such an inflammation resulting in increased production of leucocytes would rather give rise to a condition of leukæmia.

Dr. G. C. Harlan thought that, though there was perhaps little doubt in this case of the connection between the ear disease and the pyæmia, it was by no means positively made out. All the sinuses and veins in the neighborhood of the ear are reported as perfectly healthy; there was no sign of phlebitis, which is usually the immediate cause of pyæmia in such cases. The chances of disease of the tympanum leading to fatal complications are much diminished by a free exit for discharge through the external meatus, as in this case. It not unfrequently happens that a purulent aural catarrh that has been for many years little more than an annoyance becomes the direct cause of death in consequence of the obstruction of the meatus

by the growth of a polypus. This was well illustrated by the case of a patient whose temporal bone he had exhibited to the Society several years ago. This patient, after having had otorrhœa for a long time, finally died of cerebral abscess. On the removal of a polypus there had been a gush of pent-up pus from behind it. The roof of the tympanum was found to be eroded. The condition of the mastoid process was in contrast to that just described by Dr. Burnett. Though the patient was 23 years of age and had been the subject of aural catarrh since early childhood, there was not only no hyperostosis of the mastoid, but a very deficient development; it was in an almost rudimentary condition, and could not have been punctured with any degree of safety.

Gastro-duodenal cancer. By Dr. A. S. Reynolds.

W. C., male, aged 59, was admitted to the Presbyterian Hospital, February 2, 1877, giving the following history. Six weeks ago he began to have acid eructations and regurgitation about fifteen or twenty minutes after each meal, accompanied by considerable flatulence. Has a constant dull pain in the right epigastro-hypochondriac region, which is intensely exaggerated about half an hour after eating. Says he is constantly hungry; has a bad taste in his mouth, and generally awakes with feelings of nausea in the morning; action of bowels has been irregular; lately has had slight attacks of vertigo, and during the past week has vomited during the nights.

Has been of intemperate habits, but previous to the present attack has enjoyed good health. Family history cancerous. Personal appearance indicates lymphatic temperament. He is moderately emaciated, skin pale, with slight yellowish tinge, cachectic, harsh, dry, and scaly; temperature normal; pulse 120; arterial tension high.

The belly is scaphoid, the walls tense and rigid, rendering it impossible to determine the size or relation of viscera by palpation. By percussion the area of hepatic dulness found to be irregularly increased anteriorly, reaching within an inch of the umbilicus; the stomach found greatly distended, but the spleen could not be detected at all. Heart-impulse sthenic; radial arteries tense and rigid.

From the time of admission all the symptoms were progressively exaggerated; pain became acute and lancinating, and emaciation became extreme. He became very constipated, the dejections were almost colorless; vomiting seemed to depend on distention of the stomach. He would often pass three or four days and then vomit several pints at a time.

Four weeks before death the abdominal walls had so relaxed that a tumor was quite perceptible, to sight and palpation, lying in the umbilical region, to the right side, seemingly connected with the liver.

There was pulsation in the tumor, synchronous with the radial pulse, and a murmur was evident in the iliac arteries and in the abdominal aorta. Distinctly coincident with inspiration and expiration, a markedly dry fremitus was imparted through the tumor, which stopped with cessation of respiration.

During the two weeks before death, the skin became soft and moist; vomiting less frequent; the bowels loose and regular, though the dejections were still colorless; the arterial tension was lessened; the skin became more jaundiced; the abdominal veins were enlarged, and purpuric spots appeared on the extremities. He died of asthenia from inanition, May 8, 1877.

Autopsy, fifteen hours after death.—Emaciation extreme; abdomen scaphoid, showing abnormal enlargement in the right hypochondriac region.

The gastric and mesenteric veins are congested; the omentum is darkened, and along its right anterior border is studded with small glandular masses of the new growth; the stomach is greatly enlarged, the walls of the cardiac extremity being greatly attenuated, while the pyloric end is thickened and infiltrated with the abnormal growth; the pylorus is patulous. The liver is cirrhotic and contains several small cancerous nodules; otherwise the liver is not implicated in the disease nor connected with the tumor. The gall-bladder is greatly enlarged, and contains about five ounces of bile.

Occupying the upper part of umbilical region is an irregular mass, four or five inches in diameter, yellowish in color, hard, and firmly attached to the posterior abdominal walls. The growth seems to have originated in the posterior duodenal walls, about the orifice of the ductus communis choledochus, which duct is entirely surrounded by the growth, and at one point it sends a valve-like projection into the duct, which almost entirely occludes it. The biliary and hepatic ducts, though not involved in the disease, are enlarged. The contiguous mesenteric glands are enlarged and indurated, and the root of the mesentery is involved in the growth in its upper part, impinging on the aorta and cava, over the third, fourth, and fifth lumbar vertebræ, greatly diminishing their calibre.

The spleen is pale, soft, and flabby; is abnormally small, being about two inches long and one inch thick. The kidneys are normal. The heart is of average size; valves normal; the walls of the left ventricle are hypertrophied, those of the right side are thinned. The arch of the aorta is dilated, and its walls are filled with calcareous plates.

Dr. James Tyson was prompted by the extreme dilatation of the stomach presented to allude to Kussmaul's method of treating such dilatation already brought forward at a former meeting by Dr. James H. Hutchinson as of great service in the treatment of a

case of cancer with dilatation of the stomach, the specimens from which were exhibited by Dr. H.

Dr. Tyson was at this time making use of the treatment in a case of long-standing dilatation of the stomach, apparently without organic disease, in which there was the usual accumulation of immense quantities of acid fluid. The discomfort from this accumulation was so great as to cause the patient to seek relief by daily inducing vomiting by placing his finger in the fauces for the purpose. Dr. Tyson was using the Thudichum-douche apparatus for the purpose. The patient introduced the tube, by an act of swallowing, to the extent of about twenty inches, when the bottle, half filled with tepid water, is elevated, and the water allowed to run into the stomach; as soon as about one-half of the water has run in, the bottle is lowered and the fluid immediately returns, until the stomach is entirely emptied. Then the bottle, which contains a quart, is filled with tepid water, a teaspoonful of bicarbonate of sodium dissolved in it, and the water again allowed to flow into the stomach. Just before the bottle is empty it is reversed, and the fluid is again returned to the bottle, the stomach being thus thoroughly washed out. All this is done without withdrawing the tube, unless, as sometimes happens, it becomes obstructed by food. The most marked relief followed the first washing out. The patient immediately ate a hearty meal, and enjoyed it as he had not enjoyed food for a long time. Indeed, he so enjoyed his meals that he soon found he was eating too much, and was compelled to restrict himself. The washing was repeated the next day, but it was soon found that it was often enough to use it on alternate days. He soon learned to use it himself with great dexterity, and now washes his stomach out every other day, at which intervals he finds himself growing uncomfortable from accumulation of fluid.

With regard to the curative effect in cases where there is no obstruction, Dr. T. was, as yet, unable to express any opinion from his own case. For, although the use of the treatment gives the most decided relief, yet when the patient omits its use, up to the present time, the symptoms return.

The specimen was referred to the Committee on Morbid Growths.

Report of the Committee on Morbid Growths.—"The specimen presented by Dr. Reynolds, and referred to Committee, from a microscopic examination proves to be a carcinomatous new formation, its structure being made up of epithelial cells arranged in alveolar spaces, which spaces become very evident upon pencilling a thin section; also the walls of the alveoli are seen to consist of fibrillar connective tissue. Having such an arrangement of elements, it may be classed as the scirrhous variety.

"One of the nodules developed upon the mesentery was examined and found to be of a similar nature."

Obstruction of the œsophagus of a dog by a large bolus of meat. By Dr. O. H. Allis.

The bolus presented, measuring four inches long and one inch in thickness, was removed post mortem from the œsophagus of a dog, which died of starvation in consequence.

REVIEWS AND BOOK NOTICES.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Vol. XV.—Diseases of the Kidney. By Prof. Carl Bartels and Prof. William Ebstein. Translated by Reginald Southey, M.D. Oxon., of London, and Robert Bertolet, M.D., of Philadelphia. Albert H. Buck, M.D., New York, Editor of the American Edition. New York, William Wood & Co.

Prof. Bartels, of Kiel, who is chiefly known in this country as the author of a clinical lecture on "The Chronic Diffuse Inflammations of the Kidney," published in Volkman's well-known "Sammlung Klinische Vorträge," gives a general introduction to the subjects treated of in this volume, in the form of a description of the general symptoms of renal affections. He follows this by a description of the special diffuse diseases of the kidney, hyperæmia, ischæmia, acute parenchymatous nephritis in general, and, under another head, that occurring during pregnancy. He then goes on to treat of chronic parenchymatous nephritis, renal cirrhosis, and finally amyloid degeneration. Prof. Ebstein is also known as a contributor to Volkman's collection of "Clinical Lectures," his contribution on "Carcinoma of the Stomach" having appeared in this series. Ebstein's portion of the volume before us is concerned, first, with inflammations of the kidney, of the pelvis of the kidney, and of the perinephritic tissues, with termination in suppuration. Following this division comes a chapter on degenerative processes of the kidneys, and then others on tumors of the kidney, of the pelvis of the kidney, and of the perinephritic tissue, on foreign bodies in the kidney, the pelvis of the kidney, and the ureters, on animal parasites of the kidneys, on anomalies in the position, form, and number of the kidneys, and, finally, on diseases of the renal vessels. The space allowed for a notice of this kind barely permits of more than an enumeration of the subjects contained in the volume. This is sufficient, however, to indicate the thorough manner in which these diseases have been considered; and, although the volume is not likely to replace the well-known monographs on renal affections at present in vogue, it must long remain a storehouse of condensed information, especially on the rarer forms of kidney diseases.

GLEANINGS FROM EXCHANGES.

THE PERILS OF ICES (*The Lancet*, July 14, 1877).—A few days ago the daily papers contained an account of an inquest upon a man, a cook at a restaurant, who, while greatly heated, swallowed a large quantity of ices, complained afterwards of feeling ill, and died next day with, as the post-mortem examination showed, inflammation of the lungs. It would be too much to assume that the ices were the cause of the pneumonia, but it is equally unjustifiable to acquit them of all share in its production. It is difficult to believe that the application of severe cold to internal viscera, situated, as the stomach and œsophagus are, adjacent to vital organs and to equally vital sympathetic centres, can be less injurious than the application of severe cold to the skin. The ice may act by the local abstraction of heat from the lungs or the heart itself, or still more probably by a reflex effect through the nervous system. Who does not know the startling pain in the frontal sinuses which an after-dinner ice may cause? And the reflex effect which is felt here as pain may, in other organs, and in morbid states of system, give rise to much more grave tissue-changes. The evil effect of swallowing a large quantity of cold water while the body is greatly heated is popularly recognized; and whatever harm a large quantity of cold water may do, a much smaller quantity of ice can effect. Hence hardly a summer passes without instances occurring of grave or fatal illness succeeding, and no doubt in part due to, an indiscriminate relief of thirst by ices.

But this is not all their ill effect. If ice be placed on the back of the hand for a short time, the skin, first anæmic, rapidly becomes and remains for a long time reddened,—congested. That which can be seen in the skin must happen in the stomach. Such congestion is different from the healthy congestion which accompanies functional excitement. The secretion of the gastric juice, the function of the stomach, is interfered with by it, and digestion is consequently hindered indirectly and directly by the lowered temperature of the stomach contents, and ultimately the occurrence of chronic gastritis is favored, if not caused. With this congestion the thirst which prompted the indulgence returns in doubled degree, and the relief gained is found to have been dearly purchased. Those who have charge of the health of the community should be alive to and insist upon the dangers which attend the excessive consumption of ices.

RECURRENT SENSIBILITY (*The Lancet*, July 21, 1877).—The most recent investigations of MM. Arloing and Léon Tripier, and numerous experiments and microscopical examinations in dogs, cats, rabbits, horses, and donkeys, have led them to the following conclusions: 1. The facial and spinal accessory nerves of solidungulate animals and rodents, as well as of carnivora, possess recurrent sensibility. 2. Recurrent sensibility is more easily demonstrated the nearer we approach the periphery of the nerves. 3. The peripheral end of the trigeminus is sensitive, although the fact is difficult to demonstrate. 4. The peripheral ends of the nerves of the trunks are sensitive. This disappears as we ascend the nervous trunks. 5. In every case the sensibility of the peripheral end is due to the presence of nervous tubes whose relation with perceptive and trophic centres has not been interrupted by the section. 6. When these tubes are absent, the peripheral end is not sensitive. 7. These tubes from the facial proceed through the fifth pair; from sensitive nerves through neighboring nerves and parallel nerves of the opposite side; from mixed nerves through neighboring and homologous nerves. 8. These recurrent tubes mount more or less high in the trunk of the nerve with which they are joined; their number diminishes as we go from the periphery towards the centre. 9. The turning-point of these fibres may take place short of the termination of the nerve, but the periphery is the point of election.

LACTIC ACID AS A HYPNOTIC (*The Dublin Journal of Medical Science*, July, 1877).—Dr. E. Mendel, as a result of his experience, arrives at the following conclusions: Lactic acid is an efficient sleep-producing agent in many cases, though not in all, and this last may also be said of morphia and chloral. In cases where pain is the cause or accompaniment of sleeplessness, lactic acid is not indicated; it is recommended, on the other hand,—

1. For insomnia occurring in the course of general asthenic diseased conditions, such as commonly occur during convalescence from serious diseases.

2. For the quieting or calming of insanity, especially the painfully irritating forms.

3. Experimentally, its methodic employment is recommended in certain psychic disorders in which the exact indications for future treatment are still in reserve.

M. Jerusalimsky, in a paper on the same subject, records the clinical effects in twenty-two cases of sleeplessness in the course of quite different diseases, among them five cases of hysteria, and only in a very small proportion was the effect *nil* or undecided. In most, sleep followed the administration in one-half to one hour. A fact published by Meyer is noteworthy in this connection, viz., that the addition of a very small amount of lactate of soda to morphia in obstinate hysterical sleeplessness is very effective. Contra-indications to these remedies are any kind of disorders of the intestinal tract.

PATHOLOGY OF SCURVY (*The Lancet*, July 21, 1877).—Mr. Charles Henry Ralfe, after a careful inquiry into the general pathology of scurvy, feels justified in drawing the following inferences:

1. That the primary change that occurs in scurvy is *a chemical alteration* in the quality of the blood.

2. That this chemical alteration, as far as can be judged from inferences drawn from the analysis of urine in patients suffering from scurvy, and analysis of "scorbutic" and "antiscorbutic" diets, points to a *diminution of the alkalinity of the blood.*

3. That this *diminution of alkalinity* is produced in the first instance (physiologically) by an increase of acid salts (chiefly urates) in the blood, and finally (pathologically) by the withdrawal of salts having an alkaline reaction (chiefly alkaline carbonates).

4. That this *diminution of the alkalinity* of the blood finally produces the same results in scurvy patients as happens in animals when attempts are made to reduce the alkalinity of the body (either by injecting acids into the blood or feeding with acid salts),—namely, dissolution of the blood-corpuscles, ecchymoses, and blood-stains on mucous surfaces, and fatty degeneration of the muscles of the heart, the muscles generally, and the secreting cells of the liver and kidney.

MISCELLANY.

THE CONTAGIOUS DISEASES ACTS.—The *Western Morning News* states that the Assistant Commissioner of Metropolitan Police has just sent to the Home Office a very satisfactory report on the operation of the Contagious Diseases Acts. Our contemporary says, "The remarkable thing about the figures of this report is the diminution in the number of prostitutes and brothels which is taking place wherever the Acts are in force. Surely it is something gained for the cause not only of morality, but also of humanity, in the fact that during the year seventy-four girls between the ages of twelve and eighteen, and seventy-four between the ages of eighteen and thirty, and five above that age, who had been found in bad company and improper places, were rescued; and that one hundred and forty-six (thirty-seven of them between twelve and eighteen) who had commenced an immoral life abandoned it on being cautioned by the police, and were not placed upon the register." —*British Medical Journal.*

MEDICAL SPECIMENS.—For rapidly preparing bones and ligaments for museum purposes, Dr. L. Frederick recommends that, after the soft parts have been taken away, except the ligaments, the preparation should be washed in water, dehydrated by alcohol, and then plunged into essence of turpentine. After two or three days' maceration in this fluid, the skeleton is placed in the position in which it is designed to keep it, and dried in the air. In drying, the bones and ligaments become beautifully white, and the whiteness increases as time passes. The same process gives less satisfactory results for muscles. For a parenchymatous organ, on removing it from the turpentine Dr. Frederick plunges it into melted wax or paraffin during half an hour or two hours, till the bubbles of turpentine have ceased to pass off. When withdrawn and cooled, the piece resembles a wax model, but it is far superior in its minor details; the color of the organ persists.—*Scientific American.*

NOTES AND QUERIES.

The general meeting of the American Social Science Association for 1877 will take place at Saratoga, commencing Tuesday evening, September 4, with the annual address of the President, Mr. David A. Wells, and continuing through the 5th, 6th, and 7th, both day and evening.

Among the most interesting features will probably be the discussions on Educational, Industrial, Social, and other questions in the Southern States, to be held by Hon. Thos. F. Bayard, of Delaware, Hon. J. Randolph Tucker and Gen. T. M. Logan, of Virginia, W. L. Trenholm, of Charleston, and others.

In the Health Department, papers will be read on Thursday and Friday by E. G. Loring, M.D., on "Is the Intellectual World becoming Near-Sighted?" F. Winsor, M.D., and others, on "Warming and Ventilation of School-Houses;" Mrs. A. C. Martin (of Otis Place School, Boston), on "Injury to the Health of Girls from Imperfect Early Training;" A. H. Nichols, M.D., on "School Desks and Seats;" and the Secretary, D. F. Lincoln, M.D., on "The Half-Time System of Education."

All, whether members of the Association or not, are cordially invited to be present. Those attending will be received at reduced rates by the United States Hotel; fares between New York and Saratoga will also probably be reduced.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM AUG. 12, 1877, *TO AUG.* 25, 1877, *INCLUSIVE.*

ALDEN, C. H., MAJOR AND SURGEON.—On account of illness, relieved from duty as Chief Surgeon of reserve column of troops of the Nez Percé Indian expedition. S. O. 113, Department of the Columbia, August 11, 1877.

STERNBERG, G. M., MAJOR AND SURGEON.—To take charge of the sick and wounded at Camp Bancroft, Indian Territory, proceed with them to Grangeville, Indian Territory, and there establish a field hospital. S. F. O. 28, Headquarters, Department of the Columbia, in the field, July 14, 1877.

KIMBALL, J. P., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Fort Brady, Michigan, to proceed to New York City and report in person at these Headquarters for assignment. S. O. 190, Division of the Atlantic, August 22, 1877.

DICKSON, J. M., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in Department of the Gulf, and ordered to the Division of the Atlantic, S. O. 172, A. G. O., August 14, 1877, and assigned to duty with U. S. troops at Indianapolis Arsenal, Indiana. S. O. 190, c. s., Division of the Atlantic.

REYNOLDS, F., CAPTAIN AND ASSISTANT-SURGEON.—Granted leave of absence for six months from September 1, 1877, on Surgeon's certificate of disability, with permission to go beyond sea. S. O. 177, A. G. O., August 20, 1877.

BROWN, P. R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty with 5th Infantry, and to return to his station—Fort Shaw. S. O. 108, Department of Dakota, April 13, 1877.

HALL, WM. R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty as medical officer with the cavalry commanded by Captain Perry, 1st Cavalry. S. F. O. 28, c. s., Department of the Columbia.

PHILADELPHIA, SEPTEMBER 15, 1877.

ORIGINAL COMMUNICATIONS.

THROMBOSIS OF THE BRAIN, HEART, AND PULMONARY ARTERY AS A CAUSE OF MORTALITY DURING THE PROGRESS OF CHOLERA INFANTUM, AND ITS PREVENTION.

BY BEDFORD BROWN, M.D.,

Alexandria, Va.

A VERY considerable proportion of the mortality arising from cholera infantum is due in reality to the development of thrombosis, either of the brain, heart, or pulmonary artery.

The pathological indications, both of the approach and full establishment of this condition, are highly characteristic, and differ materially from those of simple collapse attending cholera infantum.

Causes.—The original causes of these peculiar complications are not local in character, but are of a general nature, and are due manifestly to certain powerful impressions on the nervous centres and the vaso-motor system by the action of a high degree of solar temperature, by which that system and the great nervous centres, the brain and spinal cord, suffer from a state analogous to functional paralysis of a partial or incomplete character. Consequent and secondary to this influence, a series of changes occur in the vital and mechanical constitution of the blood, by which its solid and fluid constituents are rapidly separated, the latter being drained off from the former through the intestinal canal by exosmose rather than by secretory action.

In infancy the vital and chemical affinities existing between the blood-constituents are not so close and intimate as in the adult constitution. This fact is observed in the facility with which the fluid portions are drained off in ordinary cases of diarrhœa. With the vaso-motor system partially paralyzed from the action of intense heat, and the blood largely deprived of its fluid, saline, and albuminous properties, a general condition is established exceedingly conducive to thrombosis either in the heart, pulmonary artery, or brain.

That complication of cholera infantum, heretofore termed *congestion* of the brain, has ever been regarded as one of the most alarming and grave to which infantile life is liable.

In the vast majority of these supposed cases of congestion of the brain and effusion in the cranium occurring in this disease, thrombosis is the true pathological condition; while passive congestion and serous effusion, if any, are only the remote results of the former.

The mere designation of this class of cases as *congestion* does not by any means explain their real character and import. At the same time it tends to divert the attention from their true causes and the proper means for their correction.

The prime and original cause of a large majority if not all of those morbid phenomena which constitute the elements of cholera infantum is found, as before stated, in an intense degree of solar heat acting on the tender organism of infancy, in which the nervous centres, the sympathetic system, and the blood-making process suffer principally. This truth is manifested in the excessive languor of the voluntary powers, the irregular, depressed, and frequent action of the heart, the inactive state of the digestive powers, and the torpor of the nutritive and secretory functions. In consequence of this dangerous depression of the nervous system, blood disorganization and disintegration very soon begin, and proceed rapidly to a separation of its solid and fluid constituents by this process of exosmose. In most of these cases there is no evidence whatever of local lesions in the intestinal canal to explain this process of exosmose by which the constituents of the blood are so speedily separated.

The action of the heart in bad cases of cholera infantum becomes so enfeebled and irregular from the paralyzing influence of heat on the vaso-motor system, as is seen in the vomiting and purging, as to fail to propel the blood completely through the round of the circulation. Hence, when the vital influence of this system is lost to the circulatory organs, coagulation is liable at any time to occur in the heart and vessels.

Symptoms of Thrombosis of the Brain.—Thrombosis of the brain in cholera infantum is usually preceded for several

hours by excessive restlessness, jactitation, and indisposition to sleep. When the condition has been fully established, the first intimation may be either general eclampsia, partial convulsive movements confined to one side, one limb, or even the muscles of the face; while there may be, in other cases of a still more serious character, stupor, rapidly merging into profound coma.

Under these circumstances the temperature of the body and extremities falls rapidly below the natural standard, while that of the head is rather increased.

This is also true of the early stages of embolism, or thrombosis, confined to the principal veins of one of the limbs. Immediately following the impediment there is rapid increase of heat below that point in proportion to the œdema, then as sudden and rapid decline, until local death takes place. In the preliminary and primary stages the pupil is always contracted. To such degree does this take place that it is generally reduced to the dimensions of a pin-hole. But, as the convulsive movements subside and the comatose phenomena appear, the iris expands until it becomes a scarcely discernible ring, resembling the pupil of one under the profound influence of belladonna. Hence, a very contracted pupil occurring during an attack of cholera infantum denotes with much certainty a tendency to thrombosis of the brain. During the early stages of this latter condition the pulse always begins to increase in frequency, until during the climax the alteration is so great that the rate cannot be calculated.

Thrombosis of the Heart and Pulmonary Artery.—This complication usually appears in cholera infantum after a large number of serous intestinal discharges, copious in quantity, have taken place in rapid succession. It is always preceded by acceleration and difficulty of respiration, which continue to increase in proportion to the thrombic disposition. Thus, any unusual dyspnœa of a fixed character during the progress of serious cases of cholera infantum, without the presence of other pulmonary lesion, is a harbinger of evil, and denotes that thrombosis of the heart or pulmonary vessels is threatened. In simple collapse the complexion is *pallid* and *white*. But in thrombosis *lividity*, beginning in the extremities and lips, is always present, and denotes its development very early.

In some cases of this kind lividity has been observed to such extent as to resemble asphyxia. The suffering infant gasps for air, as if laboring under some serious pulmonary disease of an inflammatory character. Yet in such cases the respiratory murmur is not only clear, but unusually loud and puerile.

On the contrary, the cardiac sounds are found to be exceedingly imperfect and the rhythm irregular, while the action of the heart is painfully tumultuous, rapid, and feeble. Many of those extraordinarily sudden deaths from cholera infantum are really due to this complication. In some cases death occurred in from three to five hours after its development.

Case I. Thrombosis of the Brain.—A healthy infant, of eleven months, was attacked in the night with cholera infantum, and, by nine o'clock in the morning, when first visited, had had ten or twelve copious discharges, with frequent vomiting. At that time all the indications were present of impending thrombosis of the brain, consisting of excessive restlessness, contracted pupils, great frequency of pulse, partial stupor, muscular contractions and twitchings, and also strabismus. These symptoms increased rapidly in gravity, and speedily ended in paralysis of one entire side, while the muscles on the opposite were in a state of constant automatic movement. Profound coma, with extreme dilatation of pupils, terminated the scene.

Case II. Thrombosis of the Heart.—An infant of only eight months, of previous good health, was attacked with cholera infantum of a violent type. When first visited, only ten or twelve hours after the onset, the respiration was so much accelerated and difficult as to call attention to the condition of the lungs. But the respiratory murmur was found perfectly normal. The complexion was so livid as to resemble that of a child partially asphyxiated. Such was the difficulty of respiration that any exertion, even the acts of crying, taking water or nourishment, caused excessive dyspnœa. The systolic sound of the heart was entirely abolished, while in place of the rhythmic sounds there were only confused and irregular murmurs of an indistinct character.

These are true types of thrombosis, occurring during attacks of cholera infantum, which have not unfrequently come under my observation in past professional experience. Than these there are no morbid affections to which infancy is liable that are more fatal in results.

Treatment.—When thrombosis or em-

bolism is once established in an attack of cholera infantum, the removal of the condition is of such a hopeless character that treatment, except for purposes of alleviation, is worthless.

On the contrary, much may be accomplished, both by therapeutic means and by a rational system of diet, to prevent the occurrence of these very grave complications. In the first place, it is necessary as far as possible to avoid the paralyzing influence of a high degree of temperature on the system. A change of 20° will almost invariably accomplish that result. If this be not practicable, then one of our best correctives is the use of the cold bath systematically night and morning, followed by ample and efficient friction previous to and during the attack. Whenever reaction follows, good is certain to result. Secondly, to arrest vomiting and purging, for the purpose of preventing undue waste of blood-material. For the latter, enemata of water, frequently repeated, containing in minute solution alum or tannin, glycerin, and an appropriate proportion of tinc. opii. In these cases water is better than starchy matter as a vehicle, as it aids in supplying the wasted serum. To arrest vomiting, bismuth combined with minute quantities of cerium and alum, with the free use of ice and iced gum-water.

There is one principle in regard to the administration of medicine which is often lost sight of,—that is, minuteness of dose and frequency of time. I am convinced that much is lost often by making the intervals between the doses too long. From thirty minutes to an hour is a sufficiently long interval. A longer period than the former is often a dangerous delay. By this assiduous practice we can generally succeed in arresting undue drainage. The metallic astringents appear to act in these cases, when greatly diluted, on the mucous surface of the stomach and intestines, particularly the alum, as a decided sedative. To correct that dangerous depression of the vaso-motor system, which often amounts to absolute paralysis of the entire organic system, the free use of alcoholic stimulants is necessary.

I have known an infant of twelve months, with a very dangerous attack of cholera infantum, to take a half-pint of good brandy in twenty-four hours with marked benefit. One of the most important questions in this connection is that of maintaining the organic constituents of the blood in a complete state of solution. The blood cannot lose its fluid elements below a certain point without also losing its capacity for circulation through the capillaries. When this is reached, then death ensues from capillary stasis.

Hence the necessity, in this and kindred affections, of the copious ingestion of fluids. Death does not result from the mere local disease of the bowels in cholera infantum, but from certain blood-changes produced by inordinate drainage and depression of the nervous system, resulting either in thrombosis or capillary stasis.

In these cases it is but little of the solid elements which are lost, but the serous: thus it becomes our imperative duty to unremittingly replace this lost serum.

The method formerly was to restrict patients with this affection in the use of water and other fluids. I have lived to see both systems fairly tested, and am convinced from experience that the abundant use of cold water is not only a refreshment, but a necessity, in these cases. I am also convinced that under the former method these little patients have not only been made to suffer fearful torture from the *careful* and *studious* deprivation of cold water, but that a large mortality has resulted alone from this cause.

Iced gum-water may be used *ad libitum* in bad cases. Nutriment must also be given in a perfect state of solution, ready for rapid and easy absorption.

In this way the blood is kept supplied with a sufficient amount of fluid material to retain its solid elements in a complete state of solubility, while the heart and great vessels have ample bulk to act on and propel the vital fluid forward to the capillaries.

The form of the particular nutriment to be adopted in cholera infantum is a question of vital moment, and one on which depends the final result.

In these patients it is too often the case that this is regarded in the light of a secondary matter, while all importance is attached to the power of medicine. Such is the difficulty of digestion and absorption of nutriment, and the utterly indigestible character of that generally used in these attacks of this affection, that not unfrequently the little patient survives the attack by living alone on the materials of his own body, which are only renewed

after the power of digestion is restored. During an attack of cholera infantum, food containing fibrinous or caseous matter cannot be digested. Albumen in extreme dilution, as that of eggs beat up and highly diluted with sweetened water; the water in which good bread or crackers has been boiled; mutton- or lamb-broth, very delicately made; beef-tea, made only by extracting the juice of the fresh lean meat, with cold water, and then properly cooked, constitute forms of nutriment which can be absorbed and carried into the circulation without difficulty.

TWO CASES OF RIGHT LATERAL FACIAL PARALYSIS, PROBABLY DUE TO VENEREAL DISEASE.

BY S. J. RADCLIFFE, M.D.,

Washington, D. C.

CASE I.—Frank K. W., American, aged 23, lithographer, stout-built. Had syphilis—a single chancre—two years ago. Within the last six months has been addicted to extreme venereal indulgence. Has been treated for syphilis and spermatorrhœa.

October 21 last he first noticed falling of the lower lid of right eye, with considerable injection of the conjunctiva, and constant flow of tears, which was followed gradually by partial paralysis of the muscles of the right side of the face, especially those connected with mastication.

He consulted me for the present trouble November 4, presenting the following symptoms:

The lower lid of the right eye was drawn downwards and to left, exposing larger part of the globe; conjunctiva injected; eye suffused. Could not move the muscles of the right side of face or raise the lid. Could not masticate on right side or manage the food with his tongue. Could not eject saliva from his mouth or expectorate. Could not whistle. Deglutition and speech very much impaired; no swelling or tumor about ear or face; no tenderness along spine; no appreciable difference in temperature of the two sides of face; sensation somewhat altered and limited by the median line.

Began the treatment with ¼ gr. ext. nux vomica three times daily, and the gradual use of the faradaic current, increasing its strength each day to as much as he could bear, passing the positive wet-sponge electrode along the facial, infra-orbital, temporo-malar, and buccal nerves, and continuing the séance ten minutes. After one week I prescribed 10 grs. potassium iodide twice daily, with ¼ gr. ext. nux vomica once daily, and continued this, with faradization, another week.

Nov. 18.—The muscles of face had almost resumed their normal function. Slight difficulty in spitting; could not draw up right cheek and lid quite as well as left; mastication and speech nearly perfect. All the other functions acting well; general health improved.

Nov. 27.—Quite well of any paralysis. Discontinued battery on 24th; continued iodide of potassium and ext. nux vomica.

Dec. 15.—Discharged. After this he changed his business for one more active and in the open air, and has had no return of the symptoms.

Case II.—C. C. E., aged 32, clerk, rather spare-built, dark complexion, erect in figure. He had suffered from constipation of the bowels and with hemorrhoids for several years. Early in 1872 had distressing dyspepsia, aggravated by repeated dosing; became reduced in flesh and anæmic. Inflammation of the neck of the bladder set in, involving the prostate gland, probably the result of gonorrhœa. Micturition was frequent and painful, the burning pain remaining long after the act; sleep was interrupted, and not refreshing. Thinking his kidneys were affected, he went to Gettysburg, Pa., 1st May, 1872, and for two weeks gorged himself with katalysene water, with no benefit whatever. He then went to Danville, N. Y., and placed himself under the "Water Cure," with some general benefit. At the end of six weeks he left the establishment somewhat improved, though the pain in the urethra and bladder was greatly aggravated at times. He returned to Washington and to his office duties; which latter proved very trying, and a very acute pain developed in the lumbar region at or between the fourth and fifth lumbar vertebræ. He became very nervous and irritable; sleep was disturbed, and taken only at short intervals and in different attitudes, generally lying face downwards, there being less pain in that position. A pain was frequently felt in the occiput, as if reflected from the lumbar region. It was with difficulty that the mind could be placed or kept attentively upon one subject for any length of time. After reading for a short time, the eyes would close unavoidably, but instead of sleep a dull, benumbed sensation would seem to pervade the brain, and life became, if not a burden, of little moment to him. Still, he continued to attend to his office duties. This state continued with slight change till April, 1874; a loss of virility then supervened, though he had been "strictly virtuous."

On the 24th April he consulted a very distinguished specialist for diseases of the nervous system then in the city, who, after a close examination, prescribed the following:

℞. Liq. sodæ arsenitis, f℥ii;
Infus. calumbæ, f℥iii.

M.—Sig. A teaspoonful after each meal. Ice broken in small lumps to be applied to the

spine where the pain existed, for twelve minutes, three times a day, a large handful each time. The directions were followed carefully till the third day, when a twitching of the muscles of the right side of the face, eyelid, and lip was noticed; and on the fourth day those muscles governed by the distributing branches of the right facial nerve were completely paralyzed. Under these circumstances he applied to me for treatment, when he gave me the above intelligent statement.

He presented at that time well-marked facial paralysis of the right side. He had no control over the muscles of the right side of face nor of the eyelids. He could not use the labial letters, whistle, blow, expectorate, or chew on that side. The buccinator was loose and hanging. The conjunctiva was injected and the eye suffused. He had no headache; and no tumor, swelling, or inflammation could be detected about the jaw, parotid, or cranium. Hearing was good, and sight not impaired. I then examined him in reference to the trouble of the bladder and prostate and loss of virility. He informed me that he had gonorrhœa previously to that attack, and as he got well, as he supposed, of the gonorrhœa, he did not attribute the one as the result of the other, though he might say he had had the affection of the bladder ever since, and the impotency came after. I then placed my attention upon the pain in the back, and, upon close examination, found it located over the sacrum, and extending to the lower lumbar vertebræ. There was, except upon increased pressure or percussion, no well-marked tenderness. He complained of some soreness, but this might have been muscular or cutaneous from the continued use of external applications of plasters, rubefacients, etc. He said the pain was not affected by motions of the body; that it was constant, boring, aching, and at times almost unbearable. The urine contained a large quantity of mucus, was muddy, acid, and scanty. Temperature normal; heart's action a little accelerated; appetite fair, and bowels regular in action. I directed absolute rest for twenty days from all duties, and I placed him at once upon 2 grs. of ext. ergotin with ¼ gr. ext. belladonna three times daily, directed warm applications to the spine over seat of pain, by fomentation and poultice, the surface to be protected from the vicissitudes of the weather, and applied the faradaic current over the muscles of the face once daily. This was kept up for ten days, when the case was found progressing well; and, continuing the treatment, the paralysis of the face having subsided and the pain in the back so much less, on the sixteenth day of treatment he voluntarily returned to work again. I then directed him to take four capsules of copaiba (Mathey-Caylus) three times daily after meals, and some ferruginous tonic before meals, followed by sodium sulphite; warm applications to the spine to be continued. This treatment was continued for several months, and November 30 he informed me, though there was some irritability of the bladder and some pain still in the lumbar region, his virility had to a great degree returned, and he was in better health than he had experienced for three years or more. He applied to me for consultation quite irregularly after this, though I have seen him and talked with him occasionally about his case. When last seen, he had been uninterruptedly at work at the desk, and had had no venereal trouble since treatment was discontinued.

Remarks.—Without intending to discuss the various and conflicting theories relative to the production of remote disorders through elements of the nervous system, by contiguity or continuity, I simply present these cases as somewhat unique, and as tending to illustrate some of the difficulties we encounter in rightly appreciating the disorders under which our patients labor. We know that in rightly diagnosing disease half of the difficulty in treatment is overcome: indeed, we might say that rational treatment cannot be conducted otherwise. That the first of these disorders was of syphilitic origin I think there can be no doubt. Proof is not wanting to show that the syphilitic diathesis is capable of producing paralysis, either complete or partial; but in this case whether the facial paralysis was brought about by the mere blood-poison acting upon the general nervous system, or syphilitic organic trouble, may be a matter of question. Yet an analysis of the symptoms would rather point to the former as the more probable. Hanfield Jones states, "It is a question of considerable importance, but which I have no means of answering from my own experience, whether the syphilitic poison is capable of giving rise to nerve-disorder independently of the production of organic disease. The analogy of gouty and rheumatic diseases would lead us to an affirmative opinion." He quotes M. Zambaco, "who relates three cases, which prove, he says, in the most incontestable manner that the syphilitic diathesis may attack the nervous centres and produce profound dynamic disorders, without our being able to refer these disorders to a modification of structure, and this, too, even when there exists complete paralysis of motion and sensation."

Erb, on the other hand (Ziemssen's Cyclopædia), speaking of general paralysis,

and especially those paralyses occurring in chronic infectious diseases and in certain cachexiæ, says, "These paralyses, which may be referred partly, no doubt, to the defective quality of the blood, are chiefly caused by certain anatomical lesions of the nervous system. This is particularly the case in *syphilis*, which most frequently of all these forms of disease leads to paralysis." And again, "A cause which may act in different ways, and which, on account of its frequency, is deserving of separate mention, is syphilis. Paralyses of the ocular muscles are, indeed, amongst the commonest nervous symptoms that occur in the later stages of syphilis, and may be occasioned by very various anatomical changes, as by periostitis and exostosis in the orbit or at the base of the brain, or by gummata at various points in the course of the nerves or in the brain. . . . A not unusual cause of facial paralysis is syphilis, the products of which, as gummata, periostitis, meningitis, exostosis, etc., at the base of the skull in the temporal bone, or in the brain, very frequently affect the facial nerve. Syphilitic affections at the base of the brain in particular implicate the facial with other nerves." But excessive venery may also have been a factor in this case. The second case seemed to come under the category of those diseases called by Jaccoud palsy from peripheral irritation, by Hanfield Jones inhibitory paralysis, and by Brown-Séquard reflex paralysis. Physicians and surgeons at different times, says Aitken, have met with and recorded cases of paralysis which the amount of disease present in the nervous centre or its covering, after death, would not account for, which blood-poison would not account for, but which were found to be uniformly associated with injuries or diseases of parts or organs remote from or not directly contiguous to the spinal marrow. Such cases were assumed to be cases of "reflex paralysis," and they have now been long recognized and described by various writers. And he further says, "The fact is familiar to surgeons that catheterism often produces chills, tremors, and even convulsions," and alludes to proof of a negative kind, which shows that "the spinal cord may have its functions impaired or even lost, and that suddenly, without any anatomical lesion."

The symptoms in this case were obscure; and yet, tracing the trouble from the gonorrhœa, which was remote, then to the cystitis, then to the spine, the irritation continuing up the spinal cord, we finally have the facial paralysis. And then in the treatment, which was directed to allay local irritation, and then to tone and strengthen the general nervous system, the result was satisfactory. The symptoms did not lead intuitively to suspecting disease or lesion of the brain or cord *per se*, or apoplectiform condition, which we know is inevitably followed by, or associated with, hemiplegia, but rather to irritability of the cord extending to the nervous centres, producing a peripheral effect, as manifested in the local or facial paralysis. Niemeyer says, "The irritability of the facial, or of its attachment to the brain, may be impaired (1) by causes which act upon it prior to its entrance into the external auditory meatus; (2) by such as affect it during its course through the petrous bone; (3) by agents which involve the peripheral ramifications upon the face." In regard to the third proposition it may be a question whether the application of ice to the spine, as he practised, or in conjunction with the arsenical preparation which he took, had anything to do with the ultimate results. It is well known, as Niemeyer records, that sudden chilling of a warm face is a much more common source of facial palsy than any other agent; and it may not be irrelevant to say that chilling any part of the surface almost down to the freezing-point may, if anæsthesia is not produced, have a remote or reflex manifestation quite analogous to the facial palsy; and Dr. Christison says there are symptoms of the effects of arsenious acid referable to nervous irritation, such as imperfect palsy of the arms and legs, epilepsy, tetanus, hysterical affections, mania, and coma.

These are considered, however, as merely accidental conditions, and could not be applied to a long train of symptoms which had defied a variety of remedies persistently used, though perhaps under a misapprehension of the real facts in the case.

We distinguish myelitis from meningitis of the cord by the following symptoms, though both are often obscure. The symptoms of rachidian arachnitis or meningitis of the cord are often obscure at the commencement, but once formed the disease is characterized by pains in the back, with affection of the muscles and retention of

urine. Paralysis does not occur except by pressure produced by exudation of the fluid or by extension of inflammation and disorganization of the cord itself. In myelitis the patient complains of pain in the back, corresponding to the seat of greatest intensity of inflammation. This is not constant, but when we make pressure with the fingers over the spinous processes of the affected part, it may be augmented or only then felt. These symptoms are succeeded by impaired motion, and often likewise by diminished sensation of one or more limbs, followed by paralysis or other forms of palsy (Aitken); while "spinal irritation" is used to indicate a condition chiefly characterized by sensitiveness of certain spinal processes to pressure, great inclination to reflex movement, and a general hyperæsthesia. (Niemeyer.) Irritation of the cord, however produced, according to West, gives rise in the child, as well as in the adult, to impairment of the motor power, and, as Hanfield Jones observes, "It seems to be well ascertained that an *unfelt irritation* may give rise to very various morbid phenomena affecting both the motor and sensory nervous organs." Eliminating from our observation, then, any reference to myelitis or meningitis as approximately or remotely connected with the cases presented, may we not interpret them as belonging to that category of morbid phenomena referable solely to spinal irritation, and which, as Da Costa remarks, not being due to a cerebral malady, are not signs of serious danger?

DIPHTHERIA.—A FEW PRACTICAL REMARKS CONCERNING IT, AND ITS TREATMENT.

BY WM. MASON TURNER, M.D.,

Philadelphia.

I HAVE recently been led to believe that there are many cases diagnosed as diphtheria which are *not* diphtheria, and bear no resemblance whatever to it, save, indeed, that they are affections of the throat. Among some medical men it has become a fashion, certainly a custom, to state unqualifiedly that any patient showing white patches or ulcerated spots in the fauces or on the tonsils has diphtheria. And in those cases such statements are often at absolute variance with facts. *Why* they are made it is not my province to discuss, though reasons may be readily conjectured. I am simply stating *truths*, as they come under my own observation.

In this connection I would remark that several patients have come to me stating that some homœopathic practitioner had diagnosed their ailment as diphtheria, said ailment on examination proving to be an ordinary tonsillitis, which had broken down, and revealed, here and there, ulcerated patches, all of which, with accompanying symptoms, disappeared rapidly under a very simple, yet appropriate, treatment,—viz., a mild mercurial, followed by a brisk saline purge, this, in turn, followed by a vegetable tonic, the treatment aided by gargling or mopping the throat with the old (and now much neglected) compound sage decoction.

This *mistake in diagnosis*, I am sorry to say, is not confined to homœopathists. I have noted more cases than one which had been determined as diphtheria of the most malignant character by old-school practitioners, which cases were not diphtheria at all. I recall one in particular; and I most sincerely hope that this record may escape the notice of a well-known and highly-deserving professional brother. He (the physician) was called to see a young man who had "a very bad throat." Diphtheria, so called, was prevailing extensively in the vicinity. Dr. —— examined the case thoroughly, and most unequivocally pronounced it diphtheria. He prescribed accordingly. The patient, however, did not progress as favorably as might be expected, and by some means (which I cared not to trace) drifted under my care. I examined the throat, and, at the same time, extorted a little previous "history." To come to the point, I discarded the diphtheria theory; and my diagnosis was, *syphilitic sore throat.* I think I was right. At all events, the *ulcers* in the throat and upon the buccæ (*not* white or gray *patches* peculiar to diphtheria) soon got well under a few applications of the acid nitrate of mercury, diluted, accompanied by the internal exhibition of the iodide of potassium and the biniodide of mercury.

In a word, of my own knowledge, I am aware of more than forty cases, some of recent date, which have been diagnosed as diphtheria, yet none of which showed the *peculiar* "exudation of fibrinous and albuminous matter, in the form of pellicle, un-

derneath the epithelium." (Prof. Geo. B. Wood.)

The above remarks are given solely to direct closest attention to *proper diagnosis*. Most certainly that is a point of vital importance, as the consequent (*successful*) treatment must depend upon it *in toto*.

I am well aware that there are epidemics of diphtheria, and that often, and in certain localities, it prevails to an alarming extent; but, to supplement what I have said already as to its comparative rarity, I would add that during a long sojourn in the city of Paris I only saw about *four* cases of *genuine* diphtheria in the wards of La Charité, Lariboisière, the Beaujou, and Hôtel-Dieu hospitals.

In the autumn of 1859 and the spring of 1860, when beginning practice in Petersburg, Va., it was my good fortune to see many cases of *bona fide* diphtheria. It then and there raged to a fearful extent. I noted it in many instances, from its incipiency to its ending in partial or complete paralysis. And just here I would ask, in view of the prevalence of the complaint now reported, in how many cases has the paralytic feature shown itself? In 1859–60 I saw many such, which only very slowly progressed to recovery under quinine, iron, strychnia, and the electric battery. At that time I prepared a paper on the epidemic which had created so much alarm. It was published in the *Charleston Medical Journal*, and afterwards was copied in various medical magazines.

In my experience, diphtheria is *endemic* rather than epidemic. In my experience, too, the diphtheritic fever in the vast majority of cases is *sthenic;* and in that fact we have a valuable guide as to differential diagnosis,—the fever from tonsillitis, the sore throat of scarlatina anginosa, etc., being asthenic. Yet I *have* seen diphtheritic fever of a most malignant character, though the cases were rare.

During the prevalence of the disease in Petersburg, Va. (1859–60), our sheet-anchor in treatment was, in a nutshell, this: quinia, hydrocyanic acid, and nourishing diet *from the beginning*. At first we endeavored to assist this by blistering the throat and the use of acidulous astringent washes topically. It was soon discovered, however, to our discomfiture, that the diphtheritic membrane formed on the blistered surfaces, and that the blood-system was much depressed, while the acidulous washes seemed only to stimulate the growth of patches in the throat, at the same time most certainly toughening them and rendering their removal much more difficult.

Be it remarked that at that time the chlorate of potassium had not come to the front as our great ally in diphtheritic and kindred affections.

Having negatived the astringent washes as inapplicable, we next used, and with great success, the liquor sodæ chlorinatis locally to the throat,—inside. We used it in the proportion of one ounce to the pint of distilled water.

From experience, I am opposed to mopping out the throat and removing the false membranes with a probang saturated with the liquor ferri persulphatis. My own procedure, where a cast of membrane has been formed in the throat, in the nasal passages, or in the buccal regions, and where, in the fauces, for example, it interferes with respiration and deglutition, is to remove the same, very cautiously and *patiently*, with a pair of dressing-forceps.

To end this somewhat rambling paper, I would say that I have met with most gratifying results in diphtheria from the following treatment. If I am called early in the disease, I direct, for child or adult, a *gentle* mercurial cathartic, combined with a small quantity of the resin of podophyllin. After the bowels are moved, I begin at once with:

℞ Potass. chloratis, ʒi;
Olei anisi, ʒiij. M.

Sig.—Swallow slowly the third of a teaspoonful eight or ten times *per diem*.

Also this:

℞ Potass. chlorat., ʒiss;
Tinct. ferri chlorid., ʒiss;
Aquæ,
Syr. zingiberis, ʒāāi. M.

Sig.—For children under six years, a teaspoonful in water four times a day. For adults, a tablespoonful in water four times a day.

Keep this treatment up, use quinine *freely* when indicated, gargle or swab the throat with liq. sodæ chlorinat. (ʒi to Oi water) four times a day, have an abundance of sunlight and cheer in the room (which should be disinfected with a strong solution of potass. permanganas in saucers), give nourishing diet,—*raw oysters* the best,—and you will save your patient.

NOTES ON THE SUCCESSFUL TREATMENT OF THREE CASES OF PITYRIASIS RUBRA AT THE SKIN CLINIC OF THE PENNSYLVANIA DISPENSARY FOR SKIN DISEASES.

BY RUFUS K. HINTON, M.D.

SOME time since, while attending one of the clinical lectures of Dr. J. V. Shoemaker to the class on skin diseases, my attention was called to three well-marked cases of pityriasis rubra. The first patient was a young man, 25 years of age. His body was covered with bran-like scales, about the arms, trunk, and limbs, imbricated in regular order like the tiles of a house. Especially in the flexures of the joints were the scales piled together in large numbers. As the patient passed around and was examined by the members of the class, the number of scales shed was prodigious. On passing my hand over the surface of his skin a large number of these bran-like scales fell to the floor, leaving behind a red surface. The lecturer explained in the course of his remarks that it was due to a hyperæmia of the derma, involving the longitudinal plexus of vessels, together with hypertrophy of the horny and mucous layer of the epidermis. In this chronic case the fibro-cellular tissue was likewise hypertrophied. This condition is no doubt due to a disturbance of the sympathetic nervous system, together with the trophic nerves of the parts, giving rise to the changes in the skin above-named. The patient has been affected with this disease since childhood, and at the present time has a pale and sallow look.

The second case is that of a young child, five years of age, the sister of the first patient. The doctor by inquiry learned that the mother and all the children, six in number, of this family were more or less affected with this condition of the skin. It shows conclusively that the disease is hereditary. I may add that Dr. Shoemaker mentioned to the class two other families, affected in a similar manner, that applied to the dispensary for treatment. The little patient's body was completely covered by the same kind of scales that I have previously referred to; and as some of the students examined the patient, the scales fell off in large quantities. She was pale and emaciated, showing the appearance of one suffering from marasmus. She complained of a burning sensation of the skin, which gave rise to great torment and inconvenience. The doctor then stated that this case of pityriasis may be confounded with several other diseases of the skin, which it closely resembles. The differences in all of them are clear and well marked. The scales of *eczema* may be mistaken for it, but in this disease the primary condition is a *vesicle*, which bursts, giving rise to a catarrhal discharge. It is the drying up of this discharge that gives rise to scales or crusts. Then in pityriasis the scales are primary, while in eczema they are secondary and the result of inflammatory products. In psoriasis the scales are finer and resemble mother of pearl, instead of presenting the yellow and flaky appearance of the scales in this case. If one of the scales in psoriasis is removed, a bleeding surface is visible, due to a laceration of the capillary blood-vessels in the papillary layer of the skin.

The third case was that of a boy, 14 years of age. He is weak and debilitated, with marked emaciation. On stripping the patient and examining him, both the anterior and posterior portion of the body presented a purplish appearance. Upon looking closely, the skin was found to be studded over with small elevations, giving to it the appearance of goose-skin. These points were located at the hair-follicles, and were caused by the plugging up of the ducts by epithelium matter. In addition, the entire surface of the body was covered with scurfy patches. A raspy feeling was produced by passing the hand over the surface of the skin. No healthy patch of skin could be observed upon any portion of the body. In examining into the history of this case, it was found that the boy's father had been affected with the same condition all his life; and the mother stated that the boy's body had been red and scurfy since birth. He has likewise been sick and unhealthy since the day of his birth. In consequence of this long-continued disease, the congestion of the blood-vessels has given this characteristic purplish appearance to the entire body. The doctor then remarked that these cases all needed the same general plan of treatment. The marked debility, the want of proper tone, in each patient's system, speaks for itself, and therefore essentially requires the

tonic treatment. The first patient was ordered a tablespoonful of cod-liver oil, together with a bitter tonic, morning and evening, an hour after each meal. The second case was treated by a teaspoonful of cod-liver oil twice daily, in addition to iron lozenges taken in large numbers during the day. The third case was treated in a like manner. The students were cautioned especially against the use of the arsenical preparations, as they had in the hands of the majority of dermatologists in this disease entirely failed, and when pushed in many cases had produced enteritis and other serious complications. In persons suffering in this disease from mental or physical fatigue, rest is especially required. Should dyspepsia be present, it should be treated by its proper remedies. These cases received a mild diuretic, to be taken as a common beverage during the day. The urine of the three patients above-named was found to be deficient in quantity. The object of giving the diuretic was to increase the amount of urine in each case, and thus relieve the skin of its work. The disease, being essentially a hyperæmia from a disturbance of the sympathetic nervous system, needs something to protect its sensitive surface. The body, being likewise deprived of its natural covering, should be protected, by some soothing application, from heat, cold, and all external agencies that stimulate this congestive skin. By the soothing application of oleaginous preparations it is thus protected. In the first and second cases, olive oil must be kept continually applied to the diseased surface. In the third case, a tablespoonful of liquor ammoniæ should be thrown in a bowl of water, and then the body sponged thoroughly, so as to soften the epithelial matter in the follicles. Immediately afterwards the body should be rubbed dry with a coarse towel, and then anointed with the weak citrine ointment,—℥ss to the ℥ of adeps. These applications in the last-named should be made once weekly. The alkaline sponge-bath softens the epithelium masses, and the weak mercurial ointment stimulates the follicles to a healthy action. The other six days in the week the patient's body should be soaked in olive oil. Many other oleaginous preparations may likewise act in soothing and protecting the sensitive skin. Cod-liver oil is especially of great service as a local application. Its main objection is its peculiar odor. If the disease becomes markedly chronic, bran baths and tarry applications will sometimes stimulate the skin to a more healthy action. Three months have now passed by since the patients were placed under treatment. Being very much interested in them, I have watched their progress during this period. The scaliness and hyperæmia became less and less marked each week; and *islands* of healthy skin made their appearance here and there over the body of each patient. As the system of each responded to the proper tonic treatment, the scaliness disappeared rapidly. The first case was discharged cured at the end of six weeks, the third case at the end of nine weeks; and I am pleased to add that in the second case, that of the little girl, the cure was complete at the end of the eleventh week.

NOTES OF HOSPITAL PRACTICE.

JEFFERSON MEDICAL COLLEGE.

SERVICE OF S. W. GROSS, M.D., LECTURER ON CLINICAL SURGERY, MAY 9, 1877.

Reported by W. A. JOHNSTON, M.D.

GENTLEMEN,—I find among the out-patients this morning several cases of nævus, or marks, which are either congenital or appeared soon after birth. As they illustrate a very common affection, I shall bring them successively before you, and, after having explained their nature, proceed to perform such operations for their relief as they may demand.

VASCULAR NÆVUS.

You will notice on the forehead of this infant, who is four months old, an irregularly shaped, florid discoloration, the surface of which is slightly elevated above that of the surrounding skin, and presents a finely lobulated appearance. Under the pressure of my finger, it diminishes somewhat in size and becomes paler; but the redness and former dimensions soon recur when the compression is removed. It was first noticed by the mother as a red spot, about the size of a pin's head, in the skin, three weeks after the child's birth. Since that time it has been slowly enlarging, and is now about three-fourths of an inch in diameter. This is a simple angioma, or vascular tumor, or telangiectasis of the skin, and is familiarly known as mother's

mark. It consists essentially of capillary vessels of new formation, which are dilated and tortuous and freely anastomose with one another. The lobulated or granular appearance of the surface is due to hypertrophy of the papillæ of the skin, the vessels of which are likewise much dilated.

In the treatment of such tumors various methods may be resorted to, the object in all, except in the operation of excision, being to effect obliteration of the vessels through the excitation of adhesive inflammation. In purely cutaneous nævi, as in the case before us, the injection of irritating fluids, or the insertion of a seton, is inapplicable; so that the remedies are limited to ignipuncture, vaccination, strangulation, or excision. The introduction of heated needles has proved so inefficient in my hands that I have no confidence in it. In very small nævi, situated in unexposed portions of the body, and occurring in children who have never been vaccinated, the virus may be inserted into the tumor; but, in consequence of the pitted scars that are left by the operation, such a course is manifestly out of the question in this case. If the growth were seated transversely, I would resort to excision; but as it pursues an oblique direction, there would be some difficulty in nicely approximating the edges of the incision, and the cicatrice would be very apparent. Having excluded these procedures, I shall resort to the most applicable of all, namely, strangulation of the mass, whereby its blood-supply is effectually cut off. With this object in view, I transfix the base of the tumor with two pins at right angles, their points of entrance and emergence being at least one line distant from the growth. I then knot a strong thread under the pins, but before I tighten it I make grooves for the thread by carrying superficial incisions between the openings made by the pins, through which little expedient the child will be saved some pain. The operation is finished by knotting the ligature firmly, cutting off its ends, and retrenching the points of the pins with the pliers. In the course of four or five days the strangulated mass will fall off, when the resulting ulcerated surface will quickly heal by the granulating process.

PIGMENTED NÆVUS.

On the right cheek of this little girl, who is three years and a half old, there is a congenital, purplish-black, elevated growth, of the shape and dimensions of a French olive, although it does not extend more than one line above the level of the adjacent integuments. Its surface is covered with enlarged papillæ, and beset with a few coarse, stiff, dark hairs.

This mark is a pigmented nævus, or a mole, due to the excessive deposit of pigment in the deeper layers, or rete mucosum, of the epidermis, with hyperplasia of the fibrous element of the dermis and its papillæ; in point of fact, it is a pigmented soft fibroma.

Moles rarely constitute more than a blemish; but now and then they ulcerate, or even take on malignant action, the most common of which are epithelioma and melanotic sarcoma. In the event of their beginning to pain, or increase in size, they should be extirpated. As the present one is growing, I will include it in an elliptical incision, and unite the edges with the twisted suture.

PIGMENTED HAIRY NÆVUS.

In the third case, that of an infant, seven months old, you will observe a dark-brown mark, covered with soft, light-brown hairs, which involves the entire right upper eyelid and the forehead nearly as high up as the hairy scalp, and as far inwards as the middle line. The eyebrow is very heavy. The mother states that it existed at birth, but that it has materially increased in size; and she is very anxious to have it removed, as it is a source of great disfigurement.

This affection, known as nævus pilus, is very similar to that of the foregoing case; but there are some points of difference. Instead of being circumscribed, it is diffused; it is not elevated above the surrounding parts, although the papillæ are somewhat enlarged; and it is entirely covered with hairs. In addition to slight hyperplasia of the dermis, there is also true hyperplasia of the hair-follicles; and it is this latter feature which forms the characteristic element of the mark.

It has been proposed to destroy the mark by caustic potassa; but this I regard as barbarous. Evulsion of the hairs and the use of depilatories are of little, if any, value, and the only treatment upon which reliance can be placed is excision. If the mass were removed entirely, the resulting cicatrice would be unsightly, and there would be danger of eversion of the lid; so that I shall perform an operation which

I saw practised in this amphitheatre ten years ago by Professor Gross in a similar case, and which, so far as I know, is original with him. I first circumscribe the mass by an incision which does not extend entirely through the skin; and then, with sharp razors and knives, I slice away the diseased tissues, being careful not to go beyond the dermis or into the subcutaneous connective tissue. In this way I not only remove the pigmented rete mucosum, but also get rid of the majority of the hair-follicles. Of course those that dip down into the connective tissue will escape, so that there will be some reproduction of the hair. As the integument of the eyelid is too thin to be pared away, I refrain from touching it. The bleeding is somewhat free, showing that there is a large vascular element resident in the blemish; but this is readily controlled by a piece of lint wrung out of a diluted solution of subsulphate of iron and firmly pressed upon the part. This will be the only dressing required; and when it comes off, we may expect to find a nicely-granulating surface. In the case of Professor Gross, to which I have alluded, the cure was most satisfactory, and the cicatrice was trifling.

MUCOUS POLYPS OF THE NOSE.

C. McN., æt. 40 years. Three years ago this man's nostrils began to be obstructed, and the trouble has been increasing up to the present time. His breathing is more difficult in damp than in dry weather, and this is so marked that he says he can tell when a storm is approaching. He sleeps with his mouth open, and, consequently, snores. He complains of pain in the frontal sinuses, which is increased when the breathing is most interfered with. On examining the nostrils I find them partially filled with oyster-like masses, which are gelatinoid, mucous, or soft polyps. They are made up of loose fibrous tissue, the interspaces of which contain a large amount of sero-albuminous fluid. From this peculiarity of structure, in wet weather they absorb moisture from the atmosphere, and become larger, offering more resistance to the passage of air through the nares. In some cases they are œdematous fibromata; while in others they are myxomata, and in others again they are adenoid or glandular growths or adenoid sarcomata. As a rule there is one large polyp, and a number of smaller ones which are not easily detected. When they have existed for a long time they are apt to give rise to other difficulty than obstruction to respiration. Here there is a constant pain in the frontal sinuses. They may become so large as to expand the bones of the nose, producing the deformity known as frog-face, or they may even penetrate the antrum.

Much reliance was formerly placed in the use of astringent substances for the cure of polyps. Finely-powdered bloodroot, alum, tannin, and the tincture of the chloride of iron were chiefly relied upon, and successively abandoned. Dr. G. Troup Maxwell, of New Castle, Delaware, has lately recalled attention to the local use of the tincture of the chloride of iron. In his hands the remedy has proved very successful, the tumors shrivelling in a short time, and eventually dropping off. A quicker way of getting rid of them is to remove them at once by means of a wire loop or the polyp-forceps; although I think that it would be a good plan to apply some of these astringent substances after evulsion has been practised, with the view of checking the growth of the small masses which escape the grasp of the forceps. Deviation of the septum may be mistaken for a polyp. In it, however, the surface is generally more florid than the rest of the mucous membrane, and on examination a concavity will be found in the opposite nostril corresponding in position with the projection, which is always near the nasal orifice. Mucous polyps, on the contrary, are never florid, and they grow from the turbinated bones, particularly the superior, and even from the ethmoid at the base of the skull.

The head being firmly held by an assistant, the breathing was greatly relieved by twisting off a number of medium-sized growths.

IRRITABILITY OF THE BLADDER, THE RESULT OF CONTRACTED MEATUS AND PHIMOSIS.

F. D., æt. 11. This boy, when he was here on the last clinic day, complained of frequency of making water. I introduced a sound and felt something like a stone in the bladder, but could elicit no distinct click. For upwards of six years he has been troubled with irritability of the bladder, and he wets his bed at night. When he passes water it comes in an uninterrupted stream, and he has never noticed that it suddenly stops before the bladder

is emptied. If he has a stone he ought to have this symptom, as it is produced by the foreign body coming in contact with the internal orifice of the urethra. He never passes blood, and in this respect another prominent sign is missing. A few drops of blood are apt to be expelled at the end of the act of micturition, as some of the vessels of the inflamed mucous membrane of the neck of the bladder are apt to be lacerated when the stone is grasped by the contracted organ. He never pulls at the end of the penis, nor does he feel reflected pain there, which are common symptoms of stone. Thus several prominent symptoms of stone are absent. Frequent micturition is common to many affections, and is frequently met with in congenital defects of the external genital organs, such as elongation and contraction of the prepuce and narrowing of the meatus.

As it is possible that he may have a stone, we will examine him again. The sound used in children should terminate in a short beak, and not in a long curve, so that it may move readily in the bladder. The prepuce is redundant, but not contracted. The urinary meatus is higher up than usual, and contracted so as to admit only a very small instrument. The urethra is irritable, as is shown by the pain awakened by the passage of the instrument, but I detect no stone. The other day the sound came in contact with phosphatic deposit on the columniform bladder, for hypertrophy of the muscular fibres, in the form of rounded, projecting bundles resembling the fleshy columns of the ventricles of the heart, exists here, on account of the extra work which they have had to perform.

To show you how much the meatus is contracted, I insert a delicate grooved director, which falls into a pouch behind and below the meatus. I will now lay this open with a curved tenotome, so as to afford free vent for the urine. The dressing will be very simple. The object being to prevent the edges of the wound from uniting, I interpose a small tent, and retain it by a narrow strip of plaster, taking care to leave a sufficiently large opening for the passage of urine.

Ten Days after Operation.—The father neglected to bring the boy for after-treatment, and, in consequence, the wound has united, and the irritability is as severe as ever. The operation was repeated, and after two days the use of a steel bougie was begun, to guard against reunion. In ten days more the boy returned, with no improvement as regards the vesical irritability. The prepuce was found to be redundant and eczematous, and the operation of circumcision was performed. Using the corona of the glans, as seen through the foreskin, as a guide, the redundant tissue was grasped between the blades of a pair of polyp-forceps, and drawn forward, when it was shaved off with a bistoury. The mucous membrane remaining intact, it was split up along the upper surface of the gland, leaving the head of the penis entirely free. The mucous membrane was then attached to the skin by five points of interrupted suture.

After this operation the irritability entirely ceased.

TRANSLATIONS.

Relations of Pregnancy to Surgical Affections (*Centralbl. f. Chirurg.*, 1877, No. 26; from *Bull. de la Soc. de Chirurgie*).—Verneuil, after alluding to the vast contributions made to surgical science within the last few years, remarks upon the necessity of having certain doubtful points cleared up, among others that concerning the reciprocal influence of pregnancy and surgical affections. To the solution of the question Verneuil contributes full notes of nine observations, which cannot be quoted for want of space. The conclusions which he draws are formulated as follows. Pregnancy and surgical affections (traumatic or of other kinds) may occur at the same time without in any way influencing each other. On the other hand, surgical affections may give rise to death of the fœtus, or miscarriage. Pregnancy, moreover, although in itself pursuing a normal course, may give rise to surgical affections (as for instance the occurrence of phlegmonous dacrocystitis), modify the course of others unfavorably, and give a peculiar unhealthy look to wounds of all kinds. In addition, concludes Verneuil, the unfavorable course of local affections during pregnancy may react upon the latter in the same manner. This unfavorable condition of local affections is so apt to change for the better after delivery that Verneuil thinks the question may sometimes arise whether the

production of premature labor might not be desirable. x.

Etiology of Fibroid Tumor of the Uterus.—F. Engelmann (*Centralbl. f. Chirurgie*, No. 27, 1877; from *Zeitschr. f. Geburtsh. und Gynäkologie*, Bd. i. Hft. i. p. 130) notes three hundred and sixty-two cases of uterine fibroid, of which sixty-five have come under his own notice, and the remainder under that of his father, and compares them with the observations of other writers. Married women, according to E.'s statistics, are more frequently the subjects of this affection than the unmarried, 5.1 to 1. (According to Winckel the proportion is 9 to 7.3.) Both observers find the affection most frequent between the ages of forty and fifty. In nearly one-half the cases the earliest symptoms appeared between the thirtieth and fortieth years. Among the married women 26 per cent. were sterile. Among the married women who had borne one or more times before the appearance of the symptoms, eleven never conceived afterwards, seven underwent one or more abortions, and twelve bore living children.

By taking advantage of especial opportunities, E. found among his sixty-five cases, in thirty-two no positive data; in the remaining thirty-three he thought himself justified in twenty-six cases in attaching importance to the assertions of the patients relative to the origin of the disease. Together with abortion, inflammation of the abdominal region (six), and difficult labor (three), typhus strain, fall, catching cold, dancing, climbing, agitation of the mind, and "diseases" were believed to be causes of the fibroid development. E. found the baths of Kreutznach effectual in removing the growth in a number of instances. x.

Formulæ for the Treatment of Scrofulous Ozæna.—M. Ory (*La France Méd.*, 1877, p. 387) gives the following formulæ. He remarks that scrofulous ozæna is an affection peculiarly painful and annoying, both to the patient and those who surround him. In order to combat the odor, Trousseau was accustomed to employ one of the following powders:

1. ℞ Bismuth. subnit.,
   Talc. venetian., āā ʒiv.—M.
2. ℞ Potassii chlorat., gr. xxx;
   Sacch. alb. pulv., ʒiv.—M.
3. ℞ Hydrarg. præcip. alb., gr. iv;
   Sacch. alb. pulv., ʒiv.—M.

He recommends that the nasal fossæ should first be thoroughly cleansed, and all crusts, etc., removed. Debout prescribes:

℞ Bismuth. subnit., ℈iv;
Potassii chlorat., gr. xvj.—M.

He also recommends the use of sulphur waters together with cod-liver oil and arsenic internally. Percy recommends injections for the nose:

℞ Tinct. iodinii, ♏xlv;
Acid. carbolic., ♏vi;
Glycerinæ, fʒi;
Aq. destillat., fʒv.—M.

The proportion of carbolic acid may be increased. Gailleton urges the use of solutions of common salt—one pint of salt to one hundred pints of water—by way of injection.

These injections should be abundant, and should be made with the aid of the nasal douche, the nasal passages being thoroughly cleansed by passing several quarts of water through them three or four times a day.

Lailler, besides the use of general treatment, is in the habit of employing injections with the following solution:

℞ Chloral hydrat., ʒiss;
Aquæ, fʒii.—M.

The repulsive odor of ozæna is likewise happily neutralized by dilute solutions of hypochlorite of sodium. The following formula containing pix may also be employed:

℞ Sodii carb. cryst. pulv., gr. xvi;
Picis liq., gtt. xvi;
Aquæ, fʒiij.—M.

Davy recommends the following astringent injection:

℞ Tannin, gr. iss;
Glycerinæ, gtt. xxx;
Aq. destillat.,
Aq. rosæ, āā fʒss.—M. x.

Cure of Ileus by Insufflation.—Roger (*Centralbl. f. Chir.*, 1877, No. 24; from *Gaz. des Hôp.*) had a patient who, otherwise healthy, was attacked by loss of appetite, vomiting, and colicky pains. No stool, even after drastic purgatives. On the left side of the abdomen, between the lower floating rib and the crest of the ilium, a hard, knobby, painful tumor could be felt. R. inserted a large tube into the intestine per anum and blew in air by means of a bellows. (Drastics were simultaneously used.) Two attempts, at some interval, finally resulted in reducing the dislocation, and the patient recovered. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 15, 1877.

EDITORIAL.

SCHOOL HYGIENE.

IT is probable that much of the future success of the science of medicine will consist in preventing the diseases of communities rather than in curing those of individuals. Much has been done in this direction in late years; social science has its earnest and enthusiastic votaries, and is progressing with rapid strides; its field of work is steadily enlarging as new problems are presented for solution, new lines of inquiry opened, and new interests created. By accurate observation and careful experiment the waves of disease which sometimes sweep over whole continents are being slowly but surely restrained; and we are justified in hoping that at some not very remote period we will be able to place substantial, if not impassable, barriers in their course.

As our professional horizon broadens, and as we look at the discoveries of the last few years, and at those which every day is now bringing forth, it would indeed seem, as has been well said, that "the immortal Descartes was not dreaming but prophesying when he said that if ever it became possible to perfect mankind the means of doing so would be found in the medical sciences."

While, however, we thus rejoice at our ever widening and increasing opportunities for usefulness, we should be careful not to overlook those causes of disease which, by their very nearness and homeliness, are too apt to be disregarded.

At this time of year the schools and colleges are reopened, and thousands of those whose future health and prosperity are dear to all of us begin a daily routine which will continue for months, and in many instances under most unfavorable conditions.

There is perhaps no subject which comes more properly within the province of the physician than the hygiene of the school and school-room, and there is perhaps none about which he is so seldom consulted. Windows arranged so as to produce myopia with the greatest possible certainty; desks and stools so proportioned as to hinder respiration and favor spinal curvatures; rapid changes of temperature with no corresponding change of clothing, as at recess, giving rise to bronchitis and pneumonias,—these are some of the little things which are too often forgotten from their apparent insignificance, but which in the aggregate add largely to the sum of human misery and suffering. If school boards were composed of physicians rather than politicians, many helpless little ones who are now predestined to lives of pain and feebleness would enjoy the health which is their just inheritance, and would strengthen instead of burdening the community.

CORRESPONDENCE.

LONDON LETTER.

THE subject-matter of the present communication will be drawn from the annual meeting of the British Medical Association, which was this year held in Manchester. There was, as can readily be conjectured, a large muster; for the well-known hospitality of the inhabitants of "Cottonopolis," combined with their enterprise, proved very attractive, in spite of the evil reputation of the place for rain. Certainly Manchester is a rainy place, if last week's experience was at all a fair one. On Tuesday it seemed determined to let the incoming stranger see what it could do in that line when on its mettle; next day it varied the performance by thundershowers, with lightning, and then settled down to a sulky threatening attitude, which made every one distrustful, and umbrellas were their inseparable companions. Fortunately, Owen's College was large enough to hold all the sections and furnish space for committee-meetings, the annual museum, and exhibitions of various kinds, so that the showery weather, to put it politely, did not cause so much

discomfort as it would have done had the various sections been in different buildings.

Those who arrived on the Monday went, as is the pious and dutiful practice of this Association, to church, and heard a sermon from the earnest and liberal-minded bishop. This prelate is a tall, handsome, straight-limbed man, whose physique is in harmony with his mind. His sermon gave great satisfaction to his audience. Then followed a general meeting, when Dr. Bartolomé, of Sheffield, vacated the presidential chair in favor of Dr. Eason Wilkinson, the senior physician of the Manchester Royal Infirmary. In his address on taking the chair, the incoming president alluded feelingly to the loss the Association had sustained during the past year by the death of leading members,—Sir William Fergusson, Dr. Gibson, Mr. Southam of Manchester, an excellent surgeon, and Mr. Whipple, who was president of the Association when it met at Plymouth in 1871. Instead of going into an account of the city, its development, the nature of its multifarious industries, and the ordinary staple material of presidential addresses, Dr. Wilkinson criticised the Royal Infirmary. And this he did, too, in no laudatory spirit, but frankly and candidly pointed out its defects and its shortcomings. Founded in 1752, it has gradually grown by additions from time to time to its present magnitude. Originally a plain brick building, it has been embellished by a Grecian front, which gives it an imposing aspect; only it is now surrounded by long shingle huts, which give more space, but æsthetically are great eye-sores. He condemned the drainage, etc., in strong language; and a personal inspection of the place tells that the comments were none too stringent for the facts. From the drainage, upwards to the horrible forecastle-looking dens in which the nurses sleep, the place calls for condemnation in the strongest possible language. If good results are achieved in this hospital, it is by the skill and energy of its medical and surgical staff, and not by the arrangements of the building. The condition of the hospital and the question of its removal to a new site and a modern building have recently created a warm discussion, and no observant person can but regret that the decision arrived at was to retain the old building on its present site.

In the evening a conversazione was held in Owen's College, and largely attended. On Wednesday morning the business of the meeting commenced in good earnest, and a bustling crowd gathered round about and in the handsome Owen's College. The address on Medicine was given by Dr. Wm. Roberts, F.R.S., the first physician in the provinces. A crowded audience was greatly gratified by the address, which was one of unusual ability. He took up the subject of the development of lowly organisms especially with reference to their relation to contagium. Some original experiments had been performed by him,—one set consisting of organic liquids which had been filtered under pressure through unglazed earthenware into sterilized flasks. The conclusions Dr. Roberts arrived at were as follows: "Organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition;" "bacteria are the actual agents of decomposition;" and a third conclusion is, "the organisms which appear as if spontaneously in decomposing fluids owe their origin exclusively to parent germs derived from the surrounding media." He then pursued the subject into its practical aspects and its relation to the production of disease; but it is impossible to give any decent abstract of this portion of the address.

The address on Surgery was delivered by Mr. Spencer Wells, who referred with justifiable pride to the share he had had in establishing ovariotomy as a successful operation. His first case was performed in 1858, and in three years he had only had ten cases. Now, however, he has performed this operation in no less than 870 women. He generously admitted the success of Thomas Keith, of Edinburgh, who out of a total of 241 cases has saved no less than 206,—"a success hitherto unequalled in the history of any capital operation." Mr. Wells alluded to many interesting subjects as well as ovariotomy. Sir Wm. Jenner was president of the Medicine Section, and took for his address the subject of the objects and uses of the Association. He spoke of the "real common brotherhood" achieved by the Association, and of the good effects of social association; also of the intellectual improvement such meetings afforded. And when it is borne in mind that this Association numbers over seven thousand members, it can readily be conceived what a powerful body it is becoming. Men from different parts of the kingdom get to know each other personally, the bond of cohesion is strengthened by having a personal element introduced, and what value that element has all political organizers know. The medical profession has been long without a voice, and it is only now finding one in the Association's journal. Of these seven thousand associates no less than fifteen hundred were present at this meeting, which is one of the largest yet held, so that what Sir Wm. Jenner said was apt and pertinent. The address, however, which attracted the most attention was that by Dr. J. C. Bucknill, president of the Section of Psychology. He chose for his subject "Confession: the Physician and the Priest," in which he criticised the practice of a number of the Church-of-England clergy who wish to re-establish auricular confession. These mimic priests, he declared, were not entitled to regard themselves as physicians. "Is the priest a physician? Is sin disease? Is sacramental confession the avowal of symptoms, penance treatment, and absolution cure? In

the interests of society and our profession, I most emphatically deny not only the identity of these things, but that there is any real analogy between them. I assert that the physician is a naturalist, the priest a supernaturalist; that no sophistry can bridge the abyss between them." He said that "The Priest in Absolution," the new handbook of the revived confessional, was unlike any medical writings except those of "the manly-vigor quacks."

In consequence of the prominence recently given to this book, and the fact that no less than seven hundred clergymen of the Church of England have formed a society for the reintroduction of confession, the greatest attention was paid to Dr. Bucknill's remarks, and they formed the subject of much animated conversation among the associates afterwards. The Church has long adopted a distinctly hostile attitude to the profession; but now the profession is giving much of its attention to the Church in return, and especially in relation to psychology. In the sections themselves many excellent papers were read, and in the Medicine Section discussions were got up specially on thoracic aneurism and pleuritic effusion, but without eliciting anything new or adding to the stock of knowledge on these subjects. In fact, it may very much be questioned whether these displays of knowledge on given subjects are as really acceptable to the bulk of the members as the plan of reading papers promiscuously and leaving men to come in and discuss them or not, as they feel inclined. A great many papers were taken as read, or portions only read, from lack of time.

On Friday morning the work commenced with an address on "Obstetric Medicine," by Robert Barnes. He first pointed out the changes wrought in the system by pregnancy, and showed how, in reality, pregnancy performed for us a number of most interesting experiments. Many of the complications of pregnancy which are usually regarded as maladies were really physiological actions, giving relief to the overcharged system. Not only were there such actions of a cataclysmic character, but more lasting actions were induced. Diabetes is present with many women during the period of gestation, disappearing when parturition is accomplished. This is a very interesting and suggestive fact. He summed up as follows: "As pregnancy is the test of soundness in the individual, it may be of all her blood-relations too, so is pregnancy often a crucial test of the soundness of pathological doctrines." He then criticised very candidly the position of the College of Surgeons in England, who do not require midwifery for their pass examinations. Yet their license to practise enables its holder to attend as much as he likes to obstetrics. As I pointed out in my last letter, a man once on the register, he can practise any department he pleases. He thought the diseases and wants of women quite as worthy of study as the maladies of men; that it was most unjust to woman to leave her special requirements to be studied or not as the student pleased. He said, "We repudiate utterly the proposition that there is one standard which it is necessary to attain to qualify for the treatment of the diseases of men, and another, a lower standard, to qualify for the treatment of the diseases of women. The new doctrine that there is a special, an inferior kind of medical knowledge that is good enough to apply to the care of women, is the most transcendent of all medical heresies, the most flagrant wrong, the grossest insult, ever inflicted upon women."

The opening address of the Surgical Section was delivered by Mr. Edward Lund, of Manchester, who took up the subject of "The After-History of Surgical Cases." He said we were "too apt to forget the old adage that 'the operation is but the beginning of the treatment.' Our patient leaves the hospital with a healed stump or a closed cicatrix, but who will tell us what shall be the fashion and utility of the former six or twelve months hence, or whether the tumor removed to-day is but the advance-guard of an enemy of far more deadly import?" He then related the after-history of some major operations performed by him, the results being highly gratifying.

The Obstetric Section was presided over by Dr. Priestley, of London, who selected as the subject of his address "The History of Obstetric Medicine in Manchester." For a century now Manchester has held a prominent position in obstetrics. Dr. White wrote well on phlegmasia dolens in 1754, and Dr. Hull followed him in 1800 with a work on the same subject. The name of Dr. Radford will never be dissevered from Cæsarean section, while Mr. Kinder Wood's name is equally strongly linked with the detachment of the placenta in unavoidable uterine hemorrhage. Dr. Roberton made a great study of the commencement of menstruation under varying circumstances, as well as of the use of midwifery instruments. Ovariotomy owes no little to Dr. Charles Clay; while Dr. Lloyd Roberts cleared up the subject of infantile leucorrhœa, which before his time had been thought due exclusively to carnal intercourse. Such are some of the more important contributions to obstetric medicine connected with Manchester.

An address was delivered on "State Medicine," by Dr. Arthur Ransome, on Tuesday evening, which was listened to with great attention. He pointed out several important matters to be attended to by the State before our sanitary arrangements can be regarded as at all perfect.

The Report of the Scientific Grants Committee was read, and £300 granted for

further research. The work done by Professor Rutherford on the action of drugs upon the biliary secretion; of Drs. Braidwood and Vaches on the life-history of contagium, illustrated by beautiful colored drawings; and the experiments of Dr. Milner Fothergill as to the antagonism of certain drugs,—all of which have appeared in the Association's journal during the last year,—tell of good work which the Association is doing in furthering scientific research in Great Britain. The flourishing condition of the finances of the Association permits of its doing much in this and other directions. Only a few years ago the Association struggled on under a load of debt, and every year the derision of its enemies was excited by its annual deficit; but that is all over now, and the balance-sheet of this year shows already in hand a sum of about £3500, of which £1500 are invested to form the nucleus of a growing capital which will make the British Medical Association a most powerful body and one of the greatest weight for all hygienic and sanitary legislation. On the Friday the remaining work of the sections was cleared off by a massacre of the innocents, and the downfall of the hopes of many a man who had worked hard at his paper for some time before in the illusive hope of having it read and discussed by a full company of medical men from all parts. But really there was no help for it; and if more papers are sent in than can possibly be got through in the time, some must be left unread, or the time must be extended,—which does not seem likely. While this unsatisfactory operation was being performed in the sections, the final general meeting was being held, and votes of thanks being proposed and carried, the hospitality of the people of Manchester being fully recognized and appreciated.

One feature of this meeting is the public breakfast given to the Association by the Temperance party, headed by Mr. Samuel Bowley. This is always a pleasant entertainment, and well attended. After a most substantial meal, Mr. Bowley begs the medical men present to give their views on the temperance question, the value of alcohol in the treatment of disease, etc. If the speeches made are not of the highest order of eloquence, and represent the rather crude views of the speakers, still it keeps the question alive, and especially amidst the profession. After breakfast was over, the writer went with some of the leaders of the party to see the working of a temperance public-house. It was a very successful imitation of an ordinary tavern, and the different colored syrups simulated closely the various alcoholic liquors which figure so conspicuously in public houses in this country. A cup of very fair coffee was furnished for a penny, a glass of respectable soda-water for a halfpenny. The food offered was on the same reasonable scale; and on the whole the place deserves commendation as a step in the right direction. It is not a charitable affair, but is meant to pay, whatever else it may not do.

Demonstrations of various kinds were made by different professors in several parts of Owen's College. Boyd Dawkins illustrated the condition of prehistoric man. Osborne Reynolds did some beautiful experiments to illustrate the formation of vortex-rings. Professor Charcot, of Paris, exhibited a series of sections of the cord in various diseases. Professor Ludwig, of Leipsic, was surrounded by a ring of leading physiologists, many of them old pupils, and looked indeed, what he is felt to be, the king of modern physiologists. But the honors of the meeting fell to an American, Dr. Lewis Sayre, of New York, who gave a demonstration of his method of treating spinal curvature by a cuirass of muslin bandage strengthened with plaster of Paris. So interested were the Association that he was requested to repeat it on another series of cases on the Friday, and the room was crammed to overflowing. Not being a surgeon, the writer can express no opinion about the value of this plan; but it was very highly applauded by competent surgeons. He was invited to give a demonstration at Liverpool on the Saturday, which, according to the *British Medical Journal*, was a complete success.

And then came the really festive part of the meeting, when no pretence of work was thought of, even, and all gave themselves up to pleasure as if to make the most of it. A long stream of conveyances set in towards Manley Hall, the mansion and grounds of Samuel Mendell, a name well known in Manchester, recently acquired by the corporation. Here were to be found hundreds of doctors, and even still more ladies, all enjoying themselves, strolling through the grounds, along the shady walks, through the conservatories, in and out of the ferneries, and then making for a large tent where there were to be found ices, claret-cup, and other things acceptable to the inner man. Every one seemed to be making the most of the opportunity. The natives were staring at the unwonted presence of so many medical men, while the strangers were observing the physique and ways of the inhabitants of the cotton districts. The ladies of Manchester are a healthy-looking body of women, well grown, clean, with plenty of evidence of their familiarity with soap and water, rendered necessary by their smut-laden atmosphere. That deterioration of physique which is so pronounced in some parts of the manufacturing districts is not manifested in what may be called the better classes of the folks of Manchester,—*i.e.*, those in the higher social strata; though it is observable in the working classes. But Manchester need not be ashamed of her population, all things considered. For Manchester believes in Manchester up to the hilt, and not without good reasons for doing so. A heavy, leaden

sky lowered over the brilliant assemblage, but the rain considerately refrained from coming down and spoiling the ladies' dresses as well as the sense of enjoyment of all. A right pleasant garden-party it was, and will be remembered as such by all present. Soon, however, there were signs of leave-taking among the associates, as the many Saturday excursions took them in various directions, and, amidst multitudinous hand-shakings, wishes were expressed for next year's meeting,—where, nobody knows yet.

On Saturday morning the different excursions set out, the weather being delightful, just as if it wished to correct, to some extent, the evil impressions of the preceding days. One party set off for the Woodbay Water-Works, the largest artificial water-works in the world; another to the salt-mines of Northwich; a third into Derbyshire; and a fourth to Lancaster. The two seaside resorts, Southport and Blackpool, strove in emulous rivalry to outdo each other in hospitality. Each provided a special train for its guests, and a sumptuous luncheon; while Blackpool further furnished a capital steamer, which headed out for Blackcombe, the western spur of the Cumberland hills. Far away on the edge of the horizon could be seen a tiny speck, the top of the Manx hills. The Lancashire coast is flat, treeless, and comparatively uninteresting, except for the villages and towns dotted so freely along the shore. But it is mild, genial, and well adapted for visitors who dislike the keen winds of the east coast. It is readily reached by rail,—rather too much so on the Saturdays and Sundays, when the places are simply overrun by legions of excursionists. After the sail, carriages were provided for a drive all round the town of Blackpool, some Japanese balancing and clairvoyance were provided in the music-hall of the place, and then the company was driven to the house of the Mayor, Dr. Cocker, who dined the whole, consisting of some two hundred guests, in his private house. The dinner was superb, and put the climax to Lancashire hospitality. Then followed some toasts, concluding with "the Lancashire witches," for in the North of England all festive occasions terminate with the toast of "the bonnie lasses," which is responded for by some bachelor. Then cigars were served out, and, after a stroll and a smoke, the company turned in to the great saloon on the pier, where luncheon had been held in the morning, to hear some excellent music. At ten P.M. all had gathered again to the train, which soon whirled them back to Manchester. And so terminated the forty-fifth meeting of the British Medical Association, held for the third time in Manchester. Sunday was a quiet day; and on Monday as I drove to the station past Owen's College there was nothing but stillness where so recently all had been bustle. There was one difference, though: the sun shone brightly.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, MAY 24, 1877.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

Caries of the sacrum and great trochanter of the femur. Verbal communication by Dr. H. LENOX HODGE.

I HAVE lately made a post-mortem examination in an interesting case, but was unable to obtain the specimens for presentation to the Society.

A young man died May 18, at 21 years of age. When four years old, he had coxalgia (left side), and had been lame ever since. When 14 years of age, an abscess formed at the hip, and after a time healed. In 1875 and again in 1876 other abscesses formed. The last opened near the anus. When examined in September, 1876, the left limb was found flexed on the body nearly at 45°, and adducted. There was shortening to the extent of four inches. A large abscess was then pointing between the great trochanter of the femur and the sacrum. This abscess extended to the great trochanter of the femur, to the edge of the acetabulum, and to the sacrum. The trochanter was found to be carious, and was removed with parts of the edge of the acetabulum, and at several times pieces of bone were removed, as they loosened, from the sacrum and what remained of the head and neck of the femur. The patient apparently improved, and was able to be out of bed, but in the spring, about March, chronic diarrhœa began, and he died in May. The post-mortem examination showed that the disease of the sacrum extended still further, and the abscess passed through the sciatic notch to the sub-peritoneal tissue, but did not communicate with the peritoneal cavity or with the bowel. There was chronic peritonitis in the region of the pelvis, ascites, and tuberculous deposits in the mesentery and in both lungs.

Two cases of catarrhal inflammation of the bladder resulting in the plugging of one ureter and the formation of cheesy masses in the kidney; death from acute tuberculosis. By Dr. MORRIS LONGSTRETH.

See *Amer. Jour. Med. Sci.*, July, 1877.

THURSDAY EVENING, JUNE 14, 1877.

THE VICE-PRESIDENT, DR. J. EWING MEARS, in the chair.

Fibrous tumor of the left upper jaw which had undergone partial calcareous degeneration. By Dr. J. EWING MEARS.

THE specimens were removed from a patient æt. 23 years, from the interior of the State, kindly brought to me by Dr. Miller, of Altoona.

The growth first made its appearance thirteen years since, in the region of the first molar tooth, which was carious and caused much pain. The offending tooth was extracted without causing cessation in the growth of the tumor. A year after, the second bicuspid tooth became loose, and was removed. Since this time the growth has steadily and slowly increased, until it has reached the size of a large orange. It has been free from pain, and has shown no tendency to undergo ulceration. Two years ago he wounded it with a coal-pick, when he was working in the coal-mines. Serious hemorrhage did not follow.

On examination, a large firm mass was seen occupying the entire external surface of the left superior maxilla, extending back to the tuberosity. The surface was smooth, and so hard as to give the impression that the growth was osseous in character. Posteriorly a point was found where the surface was elastic. The tumor had extended upwards so as to partially close the left eye by forcing the lower lid over the globe. The nose was deflected to the right of the median line, and the left nostril was dilated. The corner of the mouth on the left side drooped.

Inspection of the oral cavity showed the left buccal space filled with the growth. The alveolar process was surrounded by the tumor, very much thickened, and having imbedded in it the remaining teeth. The left half of the hard palate was covered by a dense layer of tissue, forming part of the tumor. The posterior nares and pharynx were free, as well as the entire left nostril.

After the examination the opinion was expressed that the tumor was fibrous in character, and that calcareous degeneration had taken place. Its removal was advised, and consented to by the patient. In order to divide the facial artery and nerve where the branches were small, the incision recommended by the late Sir Wm. Fergusson was employed. By this plan the tumor was fully exposed and separated from its attachment to the bone by the chisel. At a subsequent operation the alveolar process with the portion of the growth overlying the hard palate was removed, leaving but a small part of the bone remaining. Considerable suppuration followed, and continued for some time. The patient returned home before it had ceased. On examining the mass of the tumor which was attached to the external surface of the jaw, it was found to be covered by a very thin, delicate lamina of bone, which gave to it the hardness felt before removal. This layer could be easily stripped off, exposing the dense fibrous tissue beneath. The central portion contained a large mass of calcareous matter, and throughout the whole tumor were found calcareous particles. It was evident that the growth had taken its origin from the inner surface of the periosteum, beginning in that part of this membrane which covered the alveolar process, the exciting cause being in all probability the irritation provoked by the carious tooth.

Report of the Committee on Morbid Growths.

"The new formation presented by Dr. Mears, and referred to Committee on Morbid Growths, by a microscopical examination is seen to consist of spindle-shaped cells, with a scany fibrillar connective-tissue intercellular substance; here and there throughout the growth are seen points of calcareous granular matter. The formation may be considered as a peripheral osteo-sarcoma undergoing calcareous infiltration.

"June 28, 1877."

Tubercular (?) degeneration of the kidneys. By Dr. A. F. Muller, for Dr. Wm. Darrach. Notes by Dr. R. W. Deaver.

P. H., æt. 52, Ireland, laborer, was admitted to the Germantown Hospital, May, 1877. He was very much emaciated, and immediately impressed one with the idea that he was suffering with phthisis; he stated that in less than a year his weight had fallen from one hundred and eighty to one hundred and ten pounds. He has not been perfectly well and free from pain for twenty years, though able to work until less than a year ago. He complained of pain in the lower part of the abdomen, and at the head of the penis there was some pouting of the meatus. This pain caused him to micturate frequently,—as often as every hour during the night, and oftener in daytime. He has some diarrhœa and considerable tenesmus. He never has passed any calculi, nor has there ever been any stoppage of his water. Examination of his lungs gave no sign of disease. Heart normal, except a slight hæmic murmur. He has passed per urethram pure blood, but mostly a heavy, grumous urine, resembling in color chocolate with cream, with a whitish deposit on standing. When he came into the house this was quite acid, but soon became alkaline. There was not more albumen than could be accounted for by the presence of blood. We never succeeded in getting sufficient quantity to take the specific gravity, though this might easily have been done. He was put on diet of milk and beef-tea, brandy, f℥ss t. d., with pot. acet. and tr. gentian, and one-gr. opium suppositories at night.

The feebleness continued, and there was no amelioration of symptoms. His tongue was dry and coated, his pulse increased in frequency, and tr. opii camph., tr. bellad., ext. buchu fld. every three hours were ordered. Whilst using these his urine became clearer, and, though two days before his death, there was neither blood nor sediment: there was merely a trace of albumen. His general condition gradually became lower until May 30, when he died.

Post-mortem examination, May 31, 1877.—Appearance of body much emaciated. There was an absence of fat in and about all the organs and tissues.

Lungs, crepitant throughout; no cavities or appearance of tubercular deposit.

Heart, valves and muscular tissue in normal condition.

Kidneys—left, one-half normal size, enveloped in very little fat. A cyst made up one-half the organ; when laid open, an ounce of pus poured out.

The mass of the medullary portion of the organ appeared to be in a state of cheesy degeneration, as you meet in lung-tissue.

Right kidney one-third larger than normal, dark maroon color, external appearance normal. Upon being laid open, one or two cavities in a state of cheesy degeneration appeared. The membrane of the pelvis showed small tubercular bodies similar to those met with in tubercular meningitis.

Bladder, normal in appearance, except the mucous membrane near the mouth showed a few small bodies similar to those in the pelvis of the kidneys. The prostate gland was normal in size. Cavity of abdomen normal. Blood-vessels normal. The small bodies found in the mucous membrane of kidneys and bladder showed under the microscope small granular cells and granules, similar to those found in tubercular deposits in the lungs of phthisis.

The *urine*, which was albuminous, contained blood-corpuscles, granular cells, and granular matter. No tube-casts were observed.

Remarks by Dr. Wm. Darrach.—The symptoms of the case were somewhat puzzling. The patient complained of frequent micturition, having to get up every hour, with pain at the head of the penis, pain in the back and under the shoulder-blade, also in the abdomen. He walked to the hospital, and for a day or two sat about under the trees, as the weather was warm. In a short time he became weak, and went to bed. His tongue became dry, and pulse frequent. The symptoms were those of *stone*, while they also suggested aneurism of the aorta.

The clear normal appearance of the urine at one time, and at others the chocolate-color and whitish deposit, showed how easily mistakes might be made in the diagnosis. Drs. James Darrach, Downs, Lovejoy, and Deaver saw the case. Dr. J. Darrach suggested the idea of tubercular nephritis.

Dr. James Tyson remarked that it was impossible to say from an examination of the specimens in their present condition, whether there were any tubercles or not. The large caseous collections, some of which were apparently breaking down and leaving large cavities or cysts, were, he thought, not tubercular, but inflammatory,—of the same nature as the products of a catarrhal pneumonia,—the area of caseous softening being extended by the pressure of the primary catarrhal product on the surrounding renal structure, whereby its nourishment was interfered with and it fell also into a state of caseous decay. If any tubercles were present, they should be found, as under similar circumstances in the lungs, at the periphery of the cheesy centres, having their origin in the infectious properties of the latter. True miliary tuberculosis of the kidney does, of course, occur, most commonly in children, as a part of a general tuberculosis. In this instance, judging from the apparent thickening of the walls of the bladder, and the apparently diminished size of its cavity, but without knowing whether there was pus in the urine, he was inclined to suppose that the catarrhal inflammation of the kidney was an extension by the ureter of an inflammation of the bladder.

Pericarditis; pleural effusion; pyæmic abscesses in walls of heart. By Dr. A. F. Müller, for Dr. R. W. Deaver.

G. O., æt. 6½, on Friday, May 25, fell, running a needle in his right leg, just above the knee, a part of which remained in the leg so deep as not to admit of removal. The two following days he appeared perfectly well. Monday evening I found him restless and delirious, with respirations 40, pulse 144, temperature 105°. There was a very slight swelling of the injured leg; he made no complaints when the leg was extended or flexed. Physical examination at this time revealed nothing. His temperature and pulse remained almost unchanged, whilst his respirations gradually increased to 66. On Wednesday evening I first detected pulmonary dulness and moist cooing râles in lower part of right lung. On Thursday morning there were very marked and distinct pericardiac and pleural friction-sounds, with some increase of the area of dulness. He died at three o'clock on Friday morning.

Post-mortem examination, forty hours after death.—Marked discoloration of abdomen, extending on right side almost to nipple. Slight œdema of right leg. A piece of needle, five-eighths of an inch in length, found deep in adductor magnus muscle. There was apparently no irritation produced here. The saphenous vein was free from thrombus or inflammatory change. The intestines were slightly distended with gas, otherwise perfectly healthy. Mesenteric glands and liver normal. Both pleural cavities contained effusion, and both pleuræ covered with recent organizable lymph. A portion of lower lobe of right lung completely carnified. The rest of lung-tissue—right and left—healthy. The pericardial sac contained about three ounces of serum. The heart was covered with a layer of recent lymph, nearly a line in thickness, and contained in its substance several small pyæmic abscesses.

Thursday Evening, June 28, 1877.

The President, Dr. H. Lenox Hodge, in the chair.

Membranous enteritis; intestinal casts. By Dr. De F. Willard.

THE intestinal casts presented are from a case of *membranous enteritis*, in the person of a previously healthy female, æt. 40, who

some six months before had been poisoned by excessive doses of podophyllin. The extreme purging was followed by an aggravated form of dyspepsia, with alternating constipation and diarrhœa, until about four months afterwards, when large shreds of membrane began to be passed at each stool, their voidance being preceded by tenesmus and torturing pain. This pain was of the most excruciating character, resembling severe colic, and was never absent except after a free escape of the membrane after large and repeated injections. The pain extended over the whole abdomen, and the tenderness of this region was such that every touch gave pain. Succeeding the stools the exhaustion was so great as to prostrate the patient for hours.

There was no fever, but loss of appetite, emaciation, and exhaustion were progressive as the dyspeptic symptoms increased. The fæces were ill formed, but scybala were frequent.

The membrane as passed was usually in long, partially-rolled shreds, presenting to superficial view the appearance of sections of a tapeworm. The color of the masses was a dirty yellow, and when floated in water they were seen to be of irregular shape, from laceration, and to consist of flakes of a thin, transparent, albuminoid substance, possessing considerable tenacity. After soaking in water they became whiter, and they were rendered dark and tough after lying a few days in Müller's bichromate of potash fluid.

At a later period they were seen at the bottom of the vessel in large whitish masses resembling pus and mucus, but when floated were found to be casts, apparently of small intestine, eight to ten inches in length. Their amount varied from two to four ounces per day.

The rectum was found ulcerated at several points, and there were internal hemorrhoids, both of which difficulties were benefited by appropriate local treatment.

The distressing pain was relieved by opium and stramonium suppositories; but, thus far, opium, nitrate of silver, bismuth, turpentine, sulphuric acid, poultices to abdomen, and two-quart injections of a half-grain solution of nitrate of silver, have done but little to check the casting off of this membrane.

Empyema; miliary tuberculosis; nodules in liver. By Dr. A. V. MEIGS.

I wish to present to the Society this morning some specimens which Dr. Starr and I removed yesterday from the body of a child a little over three years old. I hope at some time to publish a more extended account of this very interesting case. The child had been suffering with pyothorax, and at times pneumo-pyothorax, for over a year. On April 17, about four ounces of pus were drawn from the right pleural cavity by the aspirator, and again on the 27th about six ounces more. The day before the second operation a gaseous tumor of about the size of a hen's egg made its appearance upon the upper anterior surface of the chest. This occupied the position of the second costal cartilage, which was eroded for about an inch. The tumor receded and became more prominent with each respiratory movement, and its walls were very thin, the air (for at that time there was evidently pneumo-pyothorax) being very close under the finger. The tumor could be easily pushed in, and then the finger entered the chest, between the first and third ribs. On May 3 a drainage-tube was introduced into the cavity. It was passed in in the ninth interspace and brought out in the sixth interspace. The operation was not easily done, because the ribs were pressed so closely together. There was a very large discharge of pus from the tube every day until the child died. For some time past the chest was washed out about twice a week with a solution of carbolic acid, f℥j to Oij of water.

The whole right pleural cavity was full of pus, and the lung pressed into a very small space in front. The sternum had sunk in so that there was not a space of more than about two inches between it and the spinal column. The edges of the ribs seemed to overlap the sternum somewhat, so great had been the falling in of the right side. The left lung was slightly emphysematous, and contained a great many miliary tubercles. The liver was fatty, and we found one small abscess and several hard yellow spots of about one-third the size of a pea. The kidneys were fatty. Heart healthy.

There was considerable necrosis of several of the ribs, particularly the ribs between which the drainage-tube passed.

GLEANINGS FROM EXCHANGES.

ENDOCARDITIS BLENNORRHOICA (*The Medical Record*, August 11, 1877).—In a paper published in the *Archives Générales*, Dr. Marty gives the history of a case of gonorrhœa in a man 22 years of age, which was complicated by acute endocarditis located at the aortic valves. The principal symptoms were initial chill, fever (104° F.), systolic murmur over the aortic valves, palpitation of the heart, and precordial oppression. There was no rheumatism or metastatic articular affection.

Dr. Marty has collected nine other cases from the French literature, in which a disease of the heart or of the pericardium developed itself four or five weeks after the commencement of a gonorrhœa. Of the ten cases (including the above), seven were endocarditis and three pericarditis. Of the former, the affection was located four times at the aortic valves, and three times at the mitral valves. In eight of the cases the cardiac af-

fection was preceded by gonorrhœal rheumatism; in the other two cases there was no articular affection. The complication was sometimes ushered in by a chill, and frequently coincided with a cessation of the discharge from the urethra; in other respects its course did not vary from that of the ordinary form of endocarditis. The frequency with which the affection was located at the aortic valves was noticeable, the converse being the case in acute articular rheumatism. The case reported above ran a favorable course; the patient left the hospital with a systolic aortic murmur, but without demonstrable enlargement of the heart. The urethral discharge was re-established when the acute symptoms disappeared.

Dr. Marty concludes his paper with the assertion that any serous membrane may be attacked by inflammation during the existence of a gonorrhœa, and that this inflammation is consecutive to the primary disease of the urethra.

THE USE OF THE TREPHINE IN DEPRESSED FRACTURES OF THE SKULL (*The British Medical Journal*, July 21, 1877).—Dr. Robert S. Hudson, after alluding to the change in surgical opinion which has occurred since the time of Pott, and to the brilliant results which that surgeon obtained by the use of the trephine, proceeds to question the propriety of that change, and asks that the surgical practice of the mining districts around Cornwall be given its due weight in the consideration of the question. For many years the operation of trephining for depressed fracture of the skull has been of weekly, almost daily, occurrence, and, according to Dr. Hudson, a very large percentage of the cases recover. If death ensue, there are generally obvious causes to account for it, such as diffused injury with laceration of brain-substance, and fractured base; success usually depends on an early operation, as soon as possible after the accident. He sums up his remarks as follows:

"1. Surgeons practising in the mining districts around Redruth and Camborne have had, especially in former times, unusual opportunities for the study of head-injuries.

"2. In compound fractures of the cranium, it has been the invariable practice of the most experienced to elevate depressed bone by means of the trephine or Hey's saw, without waiting for symptoms of compression or irritation.

"3. It is believed by those surgeons that no danger whatever attaches to the operation *per se*: pyæmic risks are unknown; and recovery is the rule after trephining operations.

"4. So firm is popular belief in the efficacy of the trephine, that a surgeon who hesitated to employ it, under the plea of waiting for symptoms, would assuredly suffer in reputation, if, in the event of death, he were not put on his trial for manslaughter.

"5. Hospital statistics place herniotomy among the most dangerous operations; but the statistics of hospital surgeons in their private practice show to a demonstration that an operation for the reduction of strangulated hernia is practically harmless, even when it is necessary to open the peritoneal sac, and that the risk is directly proportionate to the length of the ignorant delay which has been allowed to exist previous to the operation. (Holmes's System of Surgery, vol. iv. page 692.) Although the parallel is not in every respect a complete one, we employ the trephine at the earliest possible period, and aim at preventing mischief by removing all sources of irritation.

"6. No matter how deeply prejudiced against the trephine our young surgeons may be when fresh from the schools, a few years' experience generally dispels the illusion; they become converts to the practice of the district, and cease to look on its employment as antiquated surgery."

In *Guy's Hospital Reports* for 1877, Mr. Davies-Colley contributes two interesting cases in which the trephine was successfully employed, and adds, "These two cases support the rule which most of our text-books either miss or fail to impress, that in punctured fracture of the skull it is the surgeon's duty to trephine at once, without waiting for symptoms of compression or irritation."

THE FORMATION OF CORROSIVE SUBLIMATE IN THE SYSTEM (*The American Practitioner*, August, 1877).—It has recently been asserted that calomel in powder, mixed with powdered white sugar or magnesia, forms, in twenty-four hours, a corrosive sublimate. According to the *Osservatore Med. Sic.*, Nos. 1 and 2, 1877, Dr. Polk has observed all the effects of poisoning by corrosive sublimate produced by the administration of calomel and sugar prepared for a month. The examination of the remainder established the presence of a notable quantity of the bichloride of mercury. The same fact is stated in the *Journ. de Pharm. et de Chem. de Turin*, November, 1875, where pastilles were used. The pastilles contained sugar, which acted on the calomel and transformed it into the bichloride. On the other hand, Carlo Bernadi, pharmacian, Milan, has made numerous experiments, and concluded that the poisoning was not due to the formation of corrosive sublimate, but to the impurity of the calomel employed. Further experiments are necessary to settle this point, and they will not certainly be very difficult. Calomel, fortunately, may be given in various other ways, as by simply putting on the tongue without any mixture.

LACERATION OF DUODENUM (*Buffalo Med. and Surg. Journ.*, July, 1877).—Dr. Stoddard reports the case of a man, æt. 33, who, at 1 P.M., October 9, 1876, received a blow upon the epigastrium from a piece of board about three

feet long and six inches wide, thrown back by a circular saw against which it had been placed for the purpose of division. The blow fell in the median line about two inches above the umbilicus. Examination, external, revealed a hardly noticeable abrasion; nothing else. Patient pale and exsanguine; skin cool; pulse 52 and very slow; pain at seat of injury intense; abdominal muscles rigidly contracted; stimulants, and everything taken into the stomach, instantly rejected. Chloroform, with hot fomentations, and one-sixth of a grain of morphiæ sulph., hypodermically, relieved the pain after a short time. At 6 P.M., easy, pulse 84; at 10 P.M., easy, pulse 94; at 12 P.M., pulse 96; urine by catheter, ℥vi.

October 10, 7 A.M., has been quiet to this time; restless, pulse 110; weak, respiration short; constant desire to urinate; no urine by catheter; failed rapidly, and died at 9 30 A.M., twenty-one hours after receipt of injury.

Post-mortem, nine hours after death.—Rigor mortis well marked; slight emphysema of subcutaneous cellular tissue of abdomen, chest, neck, and face, principally of left side. External marks of injury: a very slight abrasion about two inches above the umbilicus, in the median line; abdomen slightly distended by gas; on opening thorax and abdomen, traces of injury very apparent. The muscles of abdominal wall ecchymotic internally at seat of injury; small clots of blood lying upon the intestines below the stomach, and the abdominal cavity contained three pints of bloody fluid and clots; the intestines and omentum highly congested; the stomach appeared normal, with the exception of slight congestion of its lower portion. At its pyloric extremity was the seat of lesion; at this point a laceration had occurred, separating the duodenum transversely from the pylorus; the upper margin of the liver showed a slight laceration and contusion; lungs healthy, except considerable emphysema.

TUMORS OF THE VAGINA (*Boston Med. and Surg. Journ.*, August 23, 1877).—Dr. Neugebauer has collected thirty-four cases of fibromyoma of the vagina from different medical works, and has come to the following conclusions:

1. Solid tumors of the vagina not carcinomatous are rare.

2. These are generally either fibroids or fibro-myomas, and very rarely pure sarcomas.

3. Their situation may be anywhere in the vagina. The development of the tumor is not in any way connected with the age of the patient.

4. The tumor usually grows slowly, but it can be very large and weigh even ten pounds.

5. They generally cause no inconvenience, but may be so large as to prevent childbirth.

6. The operation for their removal depends on what sort of a base they have. Severe hemorrhage can very easily occur. The result is in most cases favorable.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM AUGUST 26, 1877, TO SEPTEMBER 8, 1877, INCLUSIVE.

NORRIS, B., MAJOR AND SURGEON.—Granted leave of absence for one month. S. O. 186, A. G. O., September 1, 1877.

ALDEN, C. H., MAJOR AND SURGEON.—To join his proper station, Fort Townsend, W. T. S. O. 117, Department of the Columbia, August 16, 1877.

MCCLELLAN, E., MAJOR AND SURGEON.—Relieved from duty in Department of the South, and to report in person without delay to the Commanding General Department of the Columbia for duty. S. O. 185, A. G. O., August 31, 1877.

GREENLEAF, C. R., MAJOR AND SURGEON.—Relieved from duty in Department of the Gulf, and to report to Commanding General, Division of the Atlantic, for instructions, with view to accompany Third Infantry to the West. S. O. 188, A. G. O., September 4, 1877.

GARDNER, W. H., CAPTAIN AND ASSISTANT-SURGEON.—To proceed to Greenville, S. C., for the purpose of looking after medical property, and then rejoin his station, Allegheny Arsenal, Pittsburgh, Pa. S. O. 197, Division of the Atlantic, August 28, 1877.

SMART, CHARLES, CAPTAIN AND ASSISTANT-SURGEON.—To proceed at once from Camp Douglas, U. T., to Camp Brown, Wy. T., and report to Colonel Merritt, Fifth Cavalry, for field service. S. O. 109, Department of the Platte, August 31, 1877.

KINSMAN, J. H., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty in Department of the Gulf, and, on expiration of his present leave of absence, to report in person to Commanding General, Division of the Atlantic, for duty. S. O. 188, c. s., A. G. O.

DE WITT, C., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Fred. Steele, Wy. T. S. O. 107, Department of the Platte, August 28, 1877.

DE HANNE, J. V., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty as Post-Surgeon at Fort Concho, Texas. S. O. 153, Department of Texas, August 27, 1877.

FITZGERALD, J. A., CAPTAIN AND ASSISTANT-SURGEON.—Upon arrival of Surgeon Sternberg at Fort Lapwai, Idaho T., to transfer to him the medical property of the post, and then report, without delay, to the Commanding General of the Department, in person, in the field. S. F. O. 34, Headquarters, Department of the Columbia, in the field, July 22, 1877.

KING, J. H. T., CAPTAIN AND ASSISTANT-SURGEON.—Assigned to duty at Fort Clark, Texas, as Post-Surgeon. S. O. 153, c. s., Department of Texas.

PAULDING, H. O., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Upon conclusion of summer's campaign, to accompany First Cavalry to Fort A. Lincoln, D. T., and report to the commander of that post for duty. S. O. 113, Department of Dakota, August 21, 1877.

HALL, WM. R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to duty at Camp Macbeth, Kamiah, Idaho T. S. F. O. 31, Headquarters, Department of the Columbia, in the field, July 18, 1877.

TAYLOR, M. E., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To proceed to Baton Rouge Barracks, La., for the purpose of looking after medical property, and then rejoin his station, Wilkesbarre, Pa. S. O. 197, c. s., Division of the Atlantic.

GARDNER, E. F., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at Fort A. Lincoln, D. T., and assigned to duty at Fort Ellis, M. T. S. O. 113, c. s., Department of Dakota.

CORBUSIER, W. H., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—To proceed to Chattanooga, Tenn., for the purpose of looking after medical property, and then rejoin his station, Jeffersonville, Ind. S. O. 197, c. s., Division of the Atlantic.

ROBINSON, S. Q., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty in Department of West Point, and to accompany the Third Infantry to the West. S. O. 186, A. G. O., September 1, 1877.

DAVIS, WM. B., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Relieved from duty at St. Louis Barracks, Mo., and to report in person to Commanding General, Department of Dakota, for duty. S. O. 185, c. s., A. G. O.

PHILADELPHIA, SEPTEMBER 29, 1877.

ORIGINAL LECTURES.

CLINICAL LECTURE ON TRAUMATISM OF THE BRAIN.

Delivered at the University Hospital

BY PROFESSOR H. C. WOOD.

Reported by CHARLES K. MILLS, M.D., Chief of Clinic for Nervous Diseases.

GENTLEMEN,—As you well know, an injury to the head may produce concussion or compression of the brain. Without entering into a lengthy discussion of these conditions, I wish to warn you that, as an absolute diagnosis between the two conditions often cannot be made, it is imperative on you to give a guarded prognosis.

When compression exists, the case may be one of traumatic apoplexy, and, if so, is almost invariably meningeal in character. The brain will be found after death covered with clots. It may, however, happen that the clot is so small that the patient recovers from its effects without active symptoms. You can readily see that if the clot be very thin and circumscribed it may not produce marked symptoms. The upper circumference of the brain is wonderfully insensitive. I have seen a localized clot the size of a pigeon's egg form without manifesting its presence until secondary softening occurred.

After concussion, the result is usually recovery, but inflammation may be set up. The symptoms of concussion are probably due to a disturbance of the molecular elements of the brain by the vibrations caused by the blow, and this disturbance may be so severe as to cause organic results. It is very plain why it is that concussion is liable to be succeeded by inflammation. This may be of two kinds, namely, encephalitis or meningitis. If you examine a brain after concussion, and discover a recent encephalitis, you will find in the affected portion an increase in the number of the white blood-cells, and a rapid augmentation of the elements of the neuroglia or connective tissue, the nerve elements proper not taking much part in the earlier stages of the affection. A little later, as the result of a sort of fatty degeneration, the nerve elements disappear, and the well-known large, round, granular cells or corpuscles become abundant. This is the condition often spoken of as red softening. The same granular cells are found in white softening, but they are not formed so early.

Whenever you have concussion of serious import, look for the symptoms which indicate inflammation. These often come on so insidiously as to escape attention. One symptom, most important and characteristic, and which must be particularly attended to, is *fever*. Whenever, after a blow on the head, decided fever sets in, acute meningitis or encephalitis almost certainly exists. Sometimes the symptoms are very rapid; and almost directly after the recovery of consciousness, the temperature rises, the pulse becomes irregular, a rapid failure of power occurs, and death takes place, either with or without convulsions, about the fourth or fifth day. Such a case does not offer much hope; but the treatment instituted should be very active. Free venesection, to the point of causing fainting, should be instituted, if it can be endured at all, and if not, local bleeding should be tried.

In the case to which I call your attention especially, the patient was supposed to be suffering from chronic cerebral disease from traumatism. This is more frequently seen than acute disease, such as that of which I have spoken. Chronic disease of the brain following injury develops either as chronic encephalitis or chronic meningitis. Chronic encephalitis of such character is apt to be local; the acute form is more likely to be diffused. The same organic changes are found in the chronic as in the acute condition, but they are developed much more slowly in the former, and progress further because death is longer delayed. A sort of wall is formed around the diseased part, and the breaking down of tissue progresses until a circumscribed abscess results. Chronic abscess of the brain following traumatism is often very insidious in its development. The patient perhaps entirely rallies from the direct effects of the injury, but in a short time something wrong is noticed. He becomes irritable or apathetic, and has almost continuous headache, with occasional exacerbations.

Three more or less well-marked stages of chronic abscess may often be noted. In the

first, the symptoms of the trouble brewing are not very marked or definite; headache, slight fever in the evening, and some malaise may be the only indications. The second stage is one of even more complete latency; but in the third the symptoms become violent. Even in the second and most latent stage the patient usually suffers from headache and a changed mental condition. He is morose and irritable, and his memory is impaired. Very slight symptoms of such a character, following a blow upon the head, should always put you on your guard. If any numbness of the extremities, local palsy, or disordered motility is manifest, the case becomes scarcely doubtful. Remember, however, that the latency may be quite complete. It is quite common for the abscess to remain more or less perfectly hidden for two or three months; cases have been known of two or three years' duration; and I have read of at least one in which the latency was said to have existed for twenty-six years. I doubt, however, in this instance, the connection between the result and the asserted cause.

Instead of chronic encephalitis, chronic meningitis may be produced by violence. The symptoms are similar to those of abscess,—headache, loss of ambition, evidences of intellectual failure, etc. It is usual to say that if localized symptoms, such as affections of the pupil, squint, or local palsies, are present, they point to abscess, just as it is said that if you have aphasia it is evidence of a local lesion in the left anterior lobe about the island of Reil. You cannot always depend on this. I have seen aphasia from meningitis and blocking up of the circulation to the island of Reil, without any absolute lesion of the latter. You may likewise, as I have observed, have local palsies from meningitis. The diagnosis between abscess and meningitis is by no means a certain one; but I think that the meningitis is less likely to be latent than abscess, and that in it the patient suffers more from violent headaches, which are aggravated by bright lights and loud noises. Convulsive seizures are not diagnostic of abscess.

So far as treatment is concerned, it is not of importance to distinguish between the two conditions; but as regards prognosis it is essential to make a correct differential diagnosis, the prognosis in chronic meningitis being much better than in cases of chronic abscess of the brain. The doubt about the diagnosis should always influence the prognosis.

Dr. C., whose brain is on the table before me, presented himself four or five days ago with a letter from a physician, which stated that eighteen months since he had fallen from his buggy, striking upon the right side of his head. He was laid up for a short time from the effects of the concussion. After he got about again, he began to suffer from various symptoms, such as headache, mental apathy, irritability, and loss of strength. He was treated with numerous remedies. Among other things, he was given strychnia for supposed paralysis.

About last Christmas, that is, about four months ago, on arising from the bed in the morning, his wife noticed that he put on his clothes improperly. About this time he complained also of more headache, and shortly afterwards he had an epileptiform seizure. His vision began to be defective; and evidences of mental impairment showed themselves, memory failing. He became unable to attend to practice, and, by direction of his physicians, travelled for his health, the trouble being ascribed to overwork. He did not improve, and had occasional spells of insanity. The diagnosis, when the man came to the hospital a few days since, was narrowed down at once to abscess or meningitis. The ophthalmoscope showed atrophy of the optic nerve, believed to be from descending neuritis. The diagnosis of meningitis was confidently made. The trouble had lasted eighteen months, and it does not seem possible for an abscess to cause an encephalitis so diffused and wide-spread as to involve the optic nerve and yet not kill the patient in a comparatively brief period.

I saw the doctor on Wednesday. He was then quiet and collected. On Thursday he wandered out into the wards, acting somewhat strangely. On Friday he emptied some ice-water into his breakfast, and was heard to say something about jumping out of a window. Two men were at once detailed to watch him; but, as he was lying on the bed, he suddenly jumped to the window-sill, and, although he was caught by one of the attendants, whom he almost carried with him, he sprang out and was instantly killed.

We found, on making a post-mortem examination, a bad fracture and an apoplectic clot, the result of the fatal jump from the window. Decided evidences of chronic meningitis were also discovered; and the diagnosis, so far as chronic meningitis was concerned, was entirely confirmed. If this diagnosis had been made early in the case, and the proper treatment instituted, I believe life would have been saved. He had been treated by different physicians on various hypotheses, and doubtless in some instances with injurious effects, but had never, so far as I could learn, been actively treated for meningitis.

As already stated, the symptoms were believed to have been caused by a traumatism, a clear history of injury being given in the letter brought by the patient. Since his death, however, his wife has come to Philadelphia, and I am now led to believe, from her statements, that the meningitis was not traumatic.

Primary chronic meningitis is almost invariably due in the adult to one of three causes, namely, 1st, traumatism; 2d, syphilis; and 3d, sunstroke.

I believe that the meningitis from which the patient suffered was the result of sunstroke. His wife says that the asserted injury occurred on a very hot day in August. After a prolonged exposure to the sun, he came into the house complaining of feeling very badly, sat down on a chair and stared vacantly before him for some minutes, and then started out again to see his patients. A woman walking in the road noticed him in his carriage, looking straight forward as if unconscious of anything about him. Whilst she was watching, suddenly he was thrown out. He was picked up, and seemed strange and bewildered, but insisted on getting into his buggy, and started off. In a short time he was again thrown or fell out, and was then carried to a hospital. My belief is that the doctor fell out of his carriage. The occurrence was on a smooth village road, and the horse was jogging along in the quietest manner. Something must have led to his falling. A man does not naturally tumble out of a carriage on a smooth road, with a quiet horse, twice in a half-hour; and such a fall on a dirt road is not apt to produce a concussion severe enough to cause insensibility at the time and meningitis afterwards. The opinion that a sunstroke was the original cause of the trouble is confirmed by the fact that the patient was always much worse in hot weather.

The treatment of meningitis following sunstroke or injury should be actively antiphlogistic. Mercury should be used to the extent of touching the gums. Wet cups might be freely resorted to early in the disease, and in some cases, when the symptoms are sufficiently acute, venesection should be employed.

In advanced stages, mercury and iodide of potassium should be used alternately, and the hot iron should be applied to the nape of the neck about every fourth day. The burning should be superficial, and should be just so extensive as to allow of two applications, one being healing while the other is fresh. The patient should be kept quiet, and all mental labor and anxiety and exposure avoided. Stimulants must be avoided also, and the diet should be a spare one.

ORIGINAL COMMUNICATIONS.

FOUR CASES OF CEREBRAL INJURY.

BY C. W. DULLES, M.D.

ALTHOUGH the notes of the following cases of cerebral injury are imperfect, I think they may be of interest, and have some statistical value as well.

The first case is given as one of nearly complete recovery from a fracture at the base of the skull. The second was a fracture of the same class, resulting in recovery of physical but loss of mental functions. The third and fourth are illustrations of the difficulties of diagnosis which may confront one in dealing with the subjects of dangerous blows or falls.

Case I.—David W., æt. 46, came under my care when convalescing from a fracture at the base of the cranium. The surgeon who had treated him from the first had observed the classical array of symptoms, including hemorrhage from the mouth and nose, and satisfied me that such a fracture had existed. At the time of my taking charge he was able to go about, but dragged his left leg in walking, had some impairment of the left arm, and complete paralysis of the third cranial nerve of the left side,—the oculo-motor.

A more beautiful pathological demonstration of the anatomical distribution and physiological functions of this nerve could not be seen. It is well known that the oculo-motor

nerve directs the action of the m. levator palpebræ superioris, as well as all the muscles of the eyeball, except the m. rectus externus and the m. obliquus superior. In addition to this, passing through the ciliary ganglion, it contributes the motor fibres to the sphincter pupillæ, antagonizing the action of the sympathetic upon the dilator pupillæ. As a consequence, there was in the present case, first, complete ptosis, from paralysis of the m. levator palpebræ superioris; second, external strabismus, with a rotation of the eye inward at the upper margin and outward below, with the anterior axis directed downward and outward by the unantagonized action of the m. obliquus superior and the m. rectus externus; together with—third—extreme and persistent dilatation of the pupil.

The diagnosis was, that an organized effusion, resulting from the fracture, existed in the course of the left oculo-motor nerve, or that it had been torn across by the fracture.

The man was treated hygienically as the main assistant to recovery, and, at the same time, was given iodide of potassium in ten-grain doses, largely diluted, three times a day. In the course of two and a half months the ptosis disappeared, because he learned to elevate his eyelid with the m. occipito-frontalis; later the strabismus was corrected without an operation,—which was at one time thought of and to which he consented; but the mydriasis persisted.

The halt in his gait and the weakness of his arm gradually left him also.

At no part of the time that I saw him were his mental faculties impaired.

Case II.—Jacob W., æt. 55, a very large, fat German, fell down a flight of stairs and struck upon his head. When I saw him he was bleeding from the mouth and nose and left ear. Inserting a probe into the ear, I could plainly feel a rough, fractured, bony surface.

The man was at this time in a state of profound depression, comatose, with slow stertorous breathing, slow pulse, cool surface, and partial left-sided hemiplegia.

The first exertions were directed to bringing him out of his state of depression, and later to combat symptoms of cerebral irritation, which set in on the second day, when the hemiplegia disappeared spontaneously. On the third day he regained control of the evacuations of his bladder and rectum. On the fourth day his pulse was 60, and he was disposed to sleep, becoming much irritated when disturbed for any reason. In the afternoon he complained of pain in the left side of his head. His pulse then was 64. After receiving fifteen grains of bromide of potassium he became quiet and easy.

On the fifth day his pulse was 54. The sixth day it had come up to 64 again.

Thus the case continued without the occurrence of any extraordinary phenomena for a month and a half. There was a steady improvement in general, and at the end of that time he was perfectly able to go about and take care of himself. He had, however, lost much flesh,—I suppose not less than fifty pounds,—and was quite thin. His reason was very seriously impaired, and his memory almost worthless.

Case III.—Henry McL., a young Irishman, I found in a low drinking-saloon, with a very hot skin, his face and hands eczematous,—from sunburn, I thought,—in a muttering delirium, having a scalp wound about two inches long over his external occipital protuberance. The history was that about six hours before he had fallen out of a second-story window to the brick pavement below, a distance of about twelve feet, as I saw, and had struck upon his head.

I found that his pupils reacted very slowly. His temperature was 105°, his pulse rapid, and, as stated, he was in a stubborn muttering delirium.

I was at my wits' end to decide what was his chief trouble, sunstroke, alcoholism, or concussion of the brain. There was no fracture of the cranium, and yet no man could have such a fall without sustaining some brain injury. With this as an almost certainty, added to what I thought was evidence enough of a certain amount of sunstroke, the condition of his skin and his extremely high temperature, and the strong presumption of alcoholism, there was an array of factors which made the case as perplexing as it was interesting.

As the man did not seem in danger of depression, I determined to unload his bowels, as well as his bladder, and reduce his temperature. These three ends were secured by means of croton oil, the catheter, and the cold wet pack. At the same time, after having him cupped behind the ears, I had his head shaved and cold applied.

By evening he had purged freely and his temperature had fallen to 98°.

The next morning he was conscious, but stubborn to an incredible degree. Answers to questions could only be secured by pinching his great toe, which always aroused him from his almost ceaseless muttering, and elicited furious protests. His answers to questions were angry and utterly irreconcilable. He soon evinced an inflexible purpose to leave his bed and go out of the house to see "the boys," requiring restraint to keep him where he was.

His treatment was symptomatic and mainly hygienic. For some time following he was found persistently constipated, and required purgatives to keep his digestive track clear. He was very careless about his evacuations, making them without warning, and keeping the attendants busy all the time. When I last saw the patient his physical powers seemed restored to a normal standard, but in giving up the care of him I felt it my duty to say to his parents that I considered him unfit to take

care of himself. Indeed, his mind appeared to be utterly ruined, the phase of insanity being not violent, but imbecile.

What to call this case I could not then and cannot now positively say. Considering the complications, however, it seems to me more like what Mr. Erichsen calls "cerebral irritation" than anything else. True, he says this state "usually follows blows upon the temple or forehead;" but as he thinks they may "arise from" or be "associated with lacerations of the cerebral substance," perhaps we may think it possible such laceration should be caused by the agitation resulting from a violent blow on any firm or resisting portion of the skull, a sort of *contre-coup*, such as is referred to under the head of *Contusion of the Brain.*

Another point of difference in the case from Mr. Erichsen's description of cerebral irritation is in the matter of pulse and temperature, which are there stated to be low: "The surface is pale and cool or even cold. There is no heat of head. The pulse is small, feeble, and slow." But would not the fact of a previous sunstroke account for this difference? What would be the condition of a man who, having been exposed to extreme heat, had been partly overcome, and, in the condition of stupor following, had rolled out of a window and received a violent blow upon the head?

Is it not likely that the concurrence of these two accidents would produce such a picture as we have above?

There seemed in this case no concussion —or, if there was, it passed off very rapidly —nor any compression; there was no fracture, and the phenomena were precisely those described by Mr. Erichsen in his Surgery (Am. ed., vol. i. pp. 449, 450, 1873), with the exceptions alluded to above.

Case IV.—Mary M., æt. 23, having as a domestic stolen some of her mistress's property and being recognized on a train of cars, in order to escape arrest sprang to the ground when the train was going at a rate of about fifteen miles an hour. I saw her first about seventeen hours afterwards. She was then covered with bruises all along her left side, and her face about the mouth and left eye was much swollen. She seemed very stupid and depressed, and I could not get a word or a sign of consciousness from her.

On examination, no fracture of cranium or spine was found, nor of any other bone. Her legs were rigid, her fingers were firmly flexed over the thumbs. Her urine was found to be clear. Her pulse was 112. Her face was leeched, and she was ordered careful diet and cooling drinks, with cold to her head and heat to her feet. In the afternoon the nurse observed that when she took a little lemonade she had tremors (such as she called "inward spasms"). In the evening her pulse was 100, later 92, and later 90.

The next day, upon again examining her spine, firm pressure over the cervical vertebræ brought on convulsions of an epileptiform kind; but the same came on after pressure on her bruised shoulder. When I spoke of putting cut cups behind her ears she was quieter, which excited a suspicion of hysteria or malingering. On questioning her she nodded her head affirmatively to every question, no matter what it was. It was necessary to draw her urine off, because she did not pass it herself. In the afternoon three ounces of blood were taken with cut cups from behind her ears. During this her pulse was 96, but by evening it fell to 88.

The next day—the third of her injury—her pulse was 110, and she was irrational if aroused.

The fourth day she was rational when aroused, but sluggish and comatose if not. She was given a drop of croton oil to move her bowels, but it did not do it.

The fifth day her pulse was 96; she was conscious, complaining of pain in her head. I repeated the dose of croton oil, which operated this time.

The sixth day she had a stool and passed her own water for the first time. The pain in her head was less.

From this time she seemed to improve until the thirteenth day, when some women visited her and threatened her with exposure, and she was much depressed. On the morning following, while sitting by her bed about a half-hour after taking some coffee and bread, she called out that she was falling, and was caught by a nurse and put into bed. She was then unconscious, quite cold, with marked dyspnœa and singultus. She was given whisky and carbonate of ammonium by enema, a large mustard poultice was applied to her abdomen, and hot cans to her feet. In a short time there was developed excessive œdema of the lungs. She retched a great deal, and had very much dyspnœa. I held her over the edge of the bed at times, to allow the mucus to flow from her lungs by gravity, which seemed to do her good. Yet it was with some hesitancy this was done, because I was at first inclined to attribute the attack to a sudden hemorrhage or effusion into the fourth ventricle.

Later in the day I made use of the irritating effect of small inhalations of ether to excite coughing and thus expel from her lungs the accumulating mucus. This also proved effective. The treatment was carbonate of ammonium and whisky.

The next day, the fifteenth, she was about

the same, perhaps a trifle better, and could take some liquid food. The sixteenth she was worse, with an amount of œdema which seemed almost certain to destroy her life. At one time her respirations fell to six per minute. Then she was given ammonii carbonatis gr. x and spt. frumenti ℥ss every hour. By night she was better, and the stimulants were given less frequently.

The seventeenth day she was decidedly better, could take some liquid food, and answered, when questioned, that she was better. The whisky and carbonate of ammonium were now given every hour by enema, so as not to annoy her stomach.

Three days later she was able to sit up and talk a little. The œdema had disappeared from her lungs; but the use of carbonate of ammonium was continued for a few days longer, gradually diminishing in amount until none was given. Then she went along with general hygienic treatment until on the thirty-sixth I considered her well.

What was there here to deal with? There was no fracture that could be detected, and, I think, none concealed; but were all these phenomena dependent upon the physical shock sustained by her brain or spinal cord? or did they grow out of the complication of these with her mental and moral anxieties?

In recounting the history of the case I have mentioned the fact that I had a suspicion of hysteria or malingering. This might seem absurd in the face of the terrible fall she had had; and yet, supposing her cerebral injury had not been very great, much of her bearing could have been attributed to one of these, especially when the fact was considered that she was in daily danger of going to jail.

Then, again, what was the cause of the sudden peril which came on her the fourteenth day? It did not follow immediately upon the threat of exposure, but nearly twenty-four hours after. And how could one account for the rapid establishment of extreme œdema of the lungs? This was so rapid and so extensive as to lead me almost to despair of her recovery; and yet she pulled through it.

Recovery would have been, I think, incompatible with the existence of a hemorrhage into the fourth ventricle. Could it have been an effusion?

These and a number of other questions were called forth by the case, and they have remained questions to me from that time to this.

4041 Locust Street, Philadelphia.

MAGNETISM AS A DESTRUCTIVE FORCE.

BY JOHN VANSANT, M.D.

THE following communication was deemed by Dr. Ruschenberger to be of sufficient interest for publication in the *Times*.

New Orleans, La., December 14, 1876.

My dear Sir,—Confident that you feel a deep interest in all things tending to the advancement of science, and that you will immediately appreciate the importance of a new fact relating to the correlation of certain forces not now acknowledged by the learned world generally as having reciprocal action, I take the liberty of enclosing to you, herewith, *a spider killed by magnetism*.

This small animal had its vitality destroyed by the magnetism emanating from a small steel magnet of the U shape commonly sold in the shops. The legs of the magnet were only about two and a half inches long, by one-half inch wide and one-sixth inch thick, and the distance between the poles about one-quarter of an inch. Not the slightest mechanical injury was inflicted upon the spider; in fact, it was not touched by the magnet except as its own motions brought it in gentle contact with the steel. My procedure was simply and exactly this. Sitting on a chair, in my chamber, on Sunday last (December 10, 1876), I noticed the small spider, whose dead body I send you, actively running along the arm of my chair. Watching my opportunity, I carefully brushed it with my finger down upon the carpet of the floor, when it began to run off, but was impeded somewhat by the roughness of the carpet. I at once took from a drawer the small magnet above described, and, having removed the armature, I slid the instrument along the carpet, following after the spider, till I got the latter between the magnetic poles.

Almost instantly the spider stopped, and in a few seconds it seemed motionless; but in two or three minutes it began slowly moving its legs and elevating and depressing its head, thus touching and separating itself from one or other of the poles, though not going from between them. During this time I sat near the magnet, but did not touch it. In about five minutes the spider lay quite still, and in about ten minutes I covered both magnet and spider with a large glass tumbler, and left them thus for about two hours. I then removed the glass; and, on examination with a magnifying lens, the spider, which had not moved, was apparently *dead*. Lest it might revive by shaking, it was not touched during this examination, and the animal and magnet were left in position for some twelve hours longer. The spider, as I send it to you, has contracted and greatly diminished in size, not being above a third as large as it was when living.

I have killed spiders and other small animals, as worms and insects, as well as some plants, by magnetism, at different times during the last eight years, but I never before succeeded in thus destroying the life of a spider so quickly, and without touching it frequently, though lightly, with the magnet I used. I think this spider was not in very vigorous health, as its color was rather pale. This fact, however, can detract nothing from the value and importance of the experiment, which demonstrates that *magnetism affects the functions of living beings*.

I have at different times, and operating on various kinds of insects, proved the same fact, without allowing the insects to come in contact at all with the source of magnetism. This can be done by enclosing the insects in very thin glass tubes, and operating through the glass either with permanent or electro-magnets, or with helices of insulated copper wire conveying electric currents. I have thus plainly affected the functions of insects, though only in a few instances has the molecular perturbation been sufficient to destroy life; and in those few instances the animals were very small, and brought into very close proximity to the poles of the magnet.

The thousands of careful experiments upon the higher animals, including man, which I have made, prove, beyond reasonable doubt, not only that magnetism can disturb the vital equilibrium of animals, but also that *animals have a polar organization*, certain living organs and parts of organs being influenced in a definite manner by a given magnetic pole, and in an entirely different manner by the opposite magnetic pole, and certain other organs, when acted upon by the first-named pole, exhibiting effects analogous to those produced by the action of the opposite pole on the first-mentioned organs. The effects referred to are mostly general symptoms produced throughout the organism, and can be arranged into two opposite groups.

The most comprehensive classification of the polar organization of animals corresponds with the anatomical construction of the nervous system, and, in man, divides the body into two lateral halves, all parts to the *right* of a median plane extending from the top of the head to the bottom of the scrotum being *negative*, and all parts to the *left* of such plane being *positive*.

But if the magnetic application be made *only exactly in the median line*, either anteriorly or posteriorly, and at different parts of this line, the general symptoms that follow in the system, when sufficient time has been allowed between the several applications, will indicate that there are also transverse polar divisions of the body.

Tested thus, it can be shown that the *head* is *positive*, corresponding with the polarity of the left hand; the *neck* is *negative;* the *thorax* is *positive;* the *abdomen* is *negative;* the *penis* is *positive;* the *scrotum* is *negative*. Still, the *right mammilla*, male or female, is strongly *negative*, whilst the *left one* is equally *positive*. The *right hand* and *foot* are *negative*, and the *left ones* are *positive;* the *right side of the face* is *negative*, and the *left side of it* is *positive;* the *right testis* is *negative*, and the *left one* is *positive*. The *tip of the tongue* is *positive*. The *umbilicus* is *negative*. The *anus* is *negative*. The *ostium vaginæ* is *negative*.

Those organs or parts are called *positive* which, if applied to one another for a considerable time, will produce in the system of a sensitive person general symptoms analogous to those which would be produced by the application of the *southward* pole of a steel magnet (boreal magnetism) to *either* organ, or by the application of *polished glass* excited by silk to the same organs, or either of them.

Those organs are called *negative* which, when acted upon by the *northward* pole of a steel magnet (austral magnetism), or by *sealing-wax* excited by woollen cloth, produce general symptoms in the organism *similar* to those produced by the southward pole of a magnet or excited polished glass applied to positive organs, and the *reverse* of those produced by the northward pole of a magnet or excited sealing-wax applied to positive organs.

These general symptoms I have arranged and tabulated into two groups, called *sthenic* and *asthenic;* the former arising from the reaction of boreal (+) magnetism on positive (+) organs, and the latter from the reaction of the same (+) magnetism on negative (—) organs; or, by employing austral (—) magnetism, the sthenic group will arise from the reaction of this kind of magnetism (—) on negative (—) organs, and the asthenic group from its (—) reaction on positive (+) organs.

I have also proved, experimentally, that *heat* (+) and *cold* (—), the *solar rays* (+), the *poles of a galvanic battery* (+ or —), *induction sparks* (+ or —), the *radiation surrounding a wire conveying an electric current* (+ or —), and the *affinity force* (+ or —) of various elementary and compound bodies can be used to demonstrate the polar organization of the human body as above described, and confirm the results first obtained by magnetism.

In regard to the exact polar condition of the two halves of the cerebral hemisphere, it would appear that if the mental symptoms, as, for instance, depression, irritability, and incapability of concentrating the thoughts, produced by the application of austral (—) magnetism to some distant positive (+) organ of the body, be caused by a molecular movement propagated along the nerve-fibres of animal life to the brain, then, on account of the decussation of these fibres near the base of the cerebrum, the *right* half of this viscus must be *positive*, and the *left* half *negative; i.e.*, the reverse of the polarity indicated by the corresponding side of the body and external parts of the head.

This question, however, because of the uncertainty that at present exists as to the *modus operandi* of the magnetic force on the living tissues,—whether it affects the organism primarily through the nervous system of animal life, or through that of organic life, or whether both systems are simultaneously responsive,—cannot be satisfactorily answered. I at first thought that the impression was primarily conveyed by the sympathetic nervous system; and the want of sensation in most instances in the part submitted to magnetic action, the slowness of the supervening general symptoms to manifest themselves, and their persistency afterwards, and the character of many of these symptoms, as congestion and pallor, visibly indicating a profound influence exerted on the capillary circulation, afford strong reasons for this view. Further investigation will be necessary to determine this point.

For an account of some of my earliest researches into the matters spoken of in this letter, and for a tabular view of the two groups of general symptoms produced by magnetism of either kind applied to particular parts of the human body, I would refer to an article in the *Journal of Psychological Medicine* for April, 1870 (published by D. Appleton & Co., New York), entitled "*The Physiological Action of Magnetism.*" That table, though incomplete and in a few instances incorrect, is in the main a true statement, and, in connection with what I have herein made known, may be used as a guide for the therapeutical application of magnetism and its correlative natural forces.

I am, respectfully, and very truly, yours,

JNO. VANSANT, M.D.

To DR. W. S. W. RUSCHENBERGER,
U.S.N.

NOTE ON PROTAGON.

BY C. G. POLK, M.D.

IN order to answer numerous inquiries as to the nature, uses, doses, and diseases in which it is indicated, I will state that protagon may be obtained by Liebreich's method, or by the more complicated one which I pursue, from animal brain. At present I am preparing it from the brain of the cow. It consists of the phosphoid constituents of the brain. Of these kephaline is by far the most valuable, being exceedingly rich in phosphide of nitrogen and cerebric acid. Lecithene, myelene, and neurine are very inferior as remedial agents. Each pound of the liquid protagon contains the phosphoid constituents of thirty pounds of brains, or the amount that can be held in complete solution. It is permanent, and does not deteriorate by age. It has a pleasant slightly acid taste, no odor, or nearly none, and is as clear as an extra specimen of glycerine. I recently have ceased the use of cod-liver oil, and rely upon protagon or the glycerate of kephaline with Loeflund's extract of malt. I have found this treatment to be admirably successful in pulmonary consumption, general debility, anæmia, constitutional deterioration, and I am very confident the result has been better than if I had used the oil. My experiments with these agents, although extending over a period of eighteen years, have been vitiated as to their results by being given in association with *cod-liver oil* and other agents of unquestioned value until within the last six months.

The dose of protagon is ten drops in water, glycerate of kephaline six drops, each dose representing one grain of anhydrous cerebric acid. The dose may be repeated three or four times a day. It almost never disagrees with the stomach, and if associated with Loeflund's malt extract may be given after all other medicines are rejected. Recently, in an almost hopeless case of diphtheria, in which the powers of digestion became completely in abeyance, I gave the malt extract and glycerate of kephaline, rapidly restoring the appetite and securing a nice recovery. I may here state that the glycerate of kephaline is a saturated solution of cerebric acid, cerebrate of nitrogen, and cerebrate of sodium in chemically pure glycerine. The two hundred and eighty grains of phosphide of nitrogen contained in the kephaline, out of which one pint of the glycerate is made, may or may not exist in the solution in its normal formula.

The regular medical profession, to the decision of which I am ever ready to submit, will, however, decide the therapeutical value of protagon and kephaline, as also the claim of priority of use as remedial agents, now made by myself and Prof. Samuel R. Percy of the New York Medical College.

2349 CATHERINE STREET.

M. ALFRED DESHAIES, aged 36, chemical préparateur to the Collège de France, was recently found dead in the laboratory, and is believed to have been killed by some new chemical compounds whose effects upon himself he was trying.

NOTES OF HOSPITAL PRACTICE.

BELLEVUE HOSPITAL, NEW YORK.

CLINIC OF PROF. AUSTIN FLINT, SR.

Reported by P. Brynberg Porter, M.D.

FATTY DEGENERATION OF THE HEART.

THE first patient whom I present to you to-day, gentlemen, is a woman between 60 and 70 years of age. From the general symptoms, as well as what cardiac physical signs are present, I should say that she was probably suffering from fatty degeneration of the heart, though I do not regard the diagnosis as certain. With this condition the general symptoms are such as are referable to diminished power on the part of the heart to carry on the circulation properly; and in the present instance we find that the pulse is considerably slower than normal, and somewhat irregular, and that dyspnœa is easily excited by a small amount of exercise. On examining the chest the impulse is found to be very feeble; and the same is true of the heart-sounds, particularly the first sound. The above signs, taken in connection with the age of the patient, and also with the *arcus senilis*, which is here present, warrant us, I think, in giving the opinion that the diagnosis above mentioned is at all events highly probable.

The treatment in this case will consist in merely keeping the general health in the best condition possible, and in the administration of digitalis as occasion requires. And here I wish to impress upon you that a certain amount of discrimination is necessary in the exhibition of digitalis; for it may do harm if given too freely or in cases where it is not indicated, by augmenting the heart's action beyond the normal. The two great indications for digitalis are (1) weakness and (2) irregularity of the heart's action.

ENDOCARDITIS.

Before introducing the next patient I wish to make a few general remarks on the inflammatory affections of the heart. Carditis is a subject of little importance, and need not detain us; but endocarditis is deserving of the closest attention on account of the very serious results which are so apt to follow it. It is a remarkable fact that this affection was utterly unknown until very recent times, and that its discoverer, the distinguished Bouillaud, is still living. Perhaps, however, it is not so strange, after all, that it escaped notice so long, since we never get acute symptoms with it except when it occurs in the rare form of ulcerative endocarditis. We are perfectly familiar with it now, in connection with rheumatism and Bright's disease, and yet even in acute rheumatism, when it sets in, there is no appreciable difference in the symptoms. We have to depend entirely on physical examination for its detection, and this art, as you are aware, has not been known long. The patient whom I now bring before you entered the hospital while suffering from acute tubal nephritis, but had no heart-trouble whatever. Afterwards it was noticed that he had, and the murmur heard was a mitral systolic one, loud, rough, and for the most part confined to the præcordium. It was never regurgitant (not being transmitted beyond the apex). Now we have a basis for diagnosis.

The history of the case is as follows. James G., 40 years of age, and a native of England, was admitted to the hospital about a fortnight ago. He is a gardener by occupation, and his family history is good. He acknowledges that he is a hard drinker (taking more or less liquor before breakfast), but denies that he has ever had venereal disease. His health was good up to the commencement of his present attack. Three weeks before that time he caught cold, and drank an unusual quantity of spirits. Somewhat later he noticed some œdema of the feet, and this extended until his whole body became water-logged. At the same time he suffered from headache, nausea, and vomiting; but he nevertheless continued working as well as drinking. The night before his admission he had a violent attack of delirium, three men being required to hold him in bed. He says that for six months past he has been passing a larger quantity of urine than normal, and that there has been no change in this respect of late. On admission, it was found that he was suffering from general œdema, but the chest-sounds were normal. The urine was markedly albuminous, and contained both large and small hyaline casts. Under the influence of active catharsis, and cupping over the region of the kidneys, the œdema rapidly disappeared. There was at once a marked improvement in his condition, and the delirium from which he was suffering when admitted

gradually subsided. He was afterwards put on digitalis.

One week ago he complained of some pain in the chest, and on examination there was discovered a soft blowing murmur at both the apex and base of the heart. It was loud and rough, extending over the entire cardiac area. We have here the evidence of an acute endocarditis. In listening to the murmur you will notice the difference in the sound over the apex and over the body. This has no special significance, and is simply due to the different conditions in the different parts. The patient is doing well; but it is still a question in his case whether the acute affection did not supervene upon a chronic one. If the albumen does not soon disappear, we shall conclude either this, or that the present is one of those rare cases in which chronic Bright's disease succeeds to acute nephritis.

PERICARDITIS.

While speaking upon these inflammatory cardiac affections, I should like to have an acute case of pericarditis to show you, but, unfortunately, there are none in the house just now. Under these circumstances I shall have to do the best I can; and the patient whom I now present to you is one who had an attack of this affection a month ago. His history is as follows. William B., a native of Germany, 25 years of age, and a seaman by occupation. He was healthy up to three years ago, when he had a severe attack of rheumatism, lasting about a month. He had no pain over the præcordial region at that time. (Pericarditis, as you are aware, is more frequently associated with rheumatism than with any other disease, but it is also met with in Bright's disease, as well as in pleurisy and pneumonia.) His present illness commenced one week before he was admitted to the hospital. This was another attack of acute articular rheumatism, and it first affected the ankles, then the knees, and afterwards the hands and fingers. Just before admission he noticed a pain over the præcordial region. It was at first dull, but afterwards very acute, and accompanied by dyspnœa.

It is noted in the history prepared by the house-physician that the pain and swelling in the limbs were greatly relieved by the ride from his residence to the hospital in the ambulance, so that he was able to walk about the ward on his arrival here. This serves to show the benefit of what I may call methodic friction. When a joint is affected with acute rheumatism, great relief can be given by rubbing it with some lubricating liniment, at first with the lightest possible touch, and afterwards increasing the pressure applied until a very considerable amount of force can be used, to the great comfort of the patient. The ride in the ambulance, no doubt, had some such effect as this. At present the patient suffers from no dyspnœa, and the pain has almost entirely disappeared. On auscultation a loud, harsh friction-sound was heard all over the præcordial region, and also a soft blowing murmur at the apex, but not transmitted beyond. It may be laid down as a law that when we have rheumatic pericarditis there is also endocarditis present. The treatment consisted at first of twenty grains of salicylic acid every three hours, together with counter-irritation over the heart. Afterwards the iodide of potassium was given. After the patient had been in the house a few days the presence of fluid in the pericardial sac was detected, as well as in both pleural cavities. One week ago the note in the history is that the murmur still continues, but that the fluid is gradually diminishing, while the patient's condition is greatly improved. Personally, I have not examined the patient as yet, and before doing so let me run over the physical signs of pericarditis. The friction-murmur which is one of these characteristic signs is always limited to the præcordium, or extends but very slightly beyond it. We are not told in the history that there was a large effusion in the pericardium in this case. Let us suppose that there was. We should then have found a total absence of heart-impulse. On auscultation, the heart-sounds would have seemed all muffled and distant, and both the first and second sounds would have been very much alike. In such cases the first sound is always notably weak and valvular in character. Another indication of the affection is the area of dulness extending just over the area of the pericardial sac, which is visible to the eye and appreciable to the touch, in the form of a pyriform tumor. These signs afford the proof of pericarditis and pericardial effusion. At the present time the symptoms have entirely disappeared in this case. In addition, there is very little fluid in the pleuræ now, and the patient is prac-

tically well. It is remarkable that I do not get any endocardial murmur whatever to-day; and I therefore conclude that this is one of those cases (an exception to the general rule) in which the murmur entirely disappears. This is due to the fact that the products of the inflammatory action lately present have all been washed away; and our patient is certainly to be congratulated upon such a desirable result.

JAUNDICE OF TWO YEARS' STANDING.

In this patient you see at once the yellow discoloration of the skin, as well as of the conjunctiva. You notice, also, the darkness of the color, which, though not deep enough to constitute what is known as "black jaundice," is sufficient to show that the affection has already lasted for some time. Icterus is merely a symptom; but it always indicates obstruction. The most common cause of it is a duodenitis, and among the others may be mentioned the pressure of various tumors on the biliary ducts. The patient's name is James P.; he is 51 years of age, and he was admitted three days ago. As far as I can make out, there is no history of acute duodenitis or of hepatic colic; nor is there any evidence of the presence of a tumor. You may ask me, may this not be an affection of the liver itself? In this class of disease, however, there is, as a rule, no jaundice whatever. The rare affection known as acute yellow atrophy of the liver is an exception, but that is attended by numerous grave symptoms which are entirely lacking in the present case. The most probable condition here is a chronic inflammation of the duodenal mucous membrane; and I arrive at this conclusion by a process of exclusion, there being no history of gall-stones or of any sort of a tumor. The patient tells us that his jaundice has continued now for two years; yet his digestion and his general health are good, though the stools are rather pale in color. The obstruction, then, is evidently not complete, and, as there is no reason to believe that it has increased any of late, he will probably remain in his present condition for an indefinite period. In the mean time I should not advise to pursue any active course of therapeutics, but, as long as he continues well and comfortable, simply adopt an expectant plan of treatment.

CIRRHOSIS OF THE LIVER.

Patrick C., aged 49, a native of Ireland, and a laborer. We find here a globular enlargement of the abdomen, with a sense of fluctuation. Hydroperitoneum, without any other dropsy, always points not only to an affection of the liver, but to one particular affection of that organ. We have no history of this case, but its etiology is all-sufficiently explained in one word,—"drink." Now let us put two or three questions to the patient. What have you been accustomed to drinking? "Spirits." Before breakfast? "Yes." How many glasses in the morning? "One, two, three, and sometimes four, according to circumstances." Then do you drink before dinner again? "No." Do you drink much water with your liquor? "Very little, and often none at all." Now, gentlemen, we have here a typical illustration of the connection that exists between the use of spirits thus taken and cirrhosis of the liver. If an individual wishes to indulge in ardent spirits and at the same time avoid cirrhosis, let him be careful not to take it either on an empty stomach or with but little or no water. The constant irritation from such drinking as our friend here has been accustomed to results, after a time, in a new formation (of fibrous tissue) which is probably of an inflammatory nature. Another effect that follows is impairment of the general nutrition, giving rise to emaciation, cachexia, etc.

In the way of treatment, the indication is to perform the operation of tapping just as soon as the quantity of effused fluid causes inconvenience to the patient. I would furthermore advise the repetition of the tapping as often as the abdomen increases again to an inconvenient size; since it can be done with impunity whenever there is a necessity for it. The time may come when the peritoneum will not fill up again; and I have myself observed this in occasional instances. I regard the treatment of cirrhosis by repeated tappings as much preferable to the active course of cathartics, diuretics, etc., which it is otherwise necessary to resort to.

TRAUMATIC TETANUS.—Dr. G. A. Evans reports (*Trans. Med. Soc. County of Kings*, September, 1877) a case in which nitrite of amyl seemed to do harm, but in which recovery followed the bold administration of cannabis indica.

TRANSLATIONS.

Treatment of Thrush (Aphthæ).—Dr. E. Ory (*La France Méd.*, 1877, p. 419) has collected the following formulæ. It must be remembered in treating aphthæ that certain affections of the digestive organs—troubles of nutrition, inflammation of the buccal mucous membrane, with augmented acidity of secretion—are conditions favoring the development of the fungus which constitutes the affection. The physician, therefore, must address himself as much to the general condition as the local affection. According to Blache, when the general condition is good it suffices to touch the mucous membrane a number of times daily with the finger, or, better, a pledget of lint on forceps, covered with the following:

℞ Glycerin. (pure), ℥i;
Aluminis, ℈iv.—M.

The mouth should be frequently washed out with Vichy water, either pure or diluted with one-fourth part of milk, or, better still, with decoction of krameria.

Trousseau recommends the following gargles:

℞ Sodii borat.,
Mellis rosæ, āā ℥ss.—M.

Or, better:

℞ Potassii chlorat., ℈iv;
Mellis rosæ, ℥ss.—M.

The honey may sometimes be replaced advantageously with syrup of krameria. In rebellious cases, Trousseau practised cauterizations with nitrate of silver:

℞ Argenti nitrat., gr. xvi;
Aquæ destillat., f℥ss.—M.

This solution, however, is apt to discolor the teeth, and therefore may be advantageously replaced by solutions of the sulphates of zinc or copper.

Bretonneau used to use powdered calomel, mingled with mucilage, as a topical application. Sée rubs the affected spots with a bit of rag, and then bathes them with this mixture:

℞ Glycerinæ, f℥x;
Amyli,
Sodii borat., āā gr. viii.—M.

West indicates an analogous formula: he does not use preparations containing honey, on account of their liability to ferment:

℞ Sodii borat., gr. xxx;
Glycerinæ, f℥i;
Aquæ, ad f℥i.—M.

He applies this very carefully on a clean linen rag, after having had the mouth thoroughly washed out with warm water. In the rebellious forms, he cauterizes with nitrate of silver solution, of the strength of about one grain to the ounce.

Parrot uses the following:

℞ Glycerinæ,
Mellis rosæ, āā ℥ss;
Potassii chlorat., ℥iss.—M.

Müller suggests:

℞ Acid. salicylic., gr. xvi;
Glycerinæ, ℥vi;
Aquæ, ad f℥ii.—M. x.

Physiology of the Vaso-Motor Nerves.—*Le Mouvement Médical* for July 7 gives an analysis of a recent work by M. Paul Bricon upon this subject. The following conclusions are formulated by the author. They only concern the vaso-motor nerves contained in the rachidian nerves, although there is no reason to believe that the physiological action of these differs in any way from that of other nerves of the same sort. Conclusions: 1. The immediate result of the section of a nerve containing vaso-motor fibres is an active, not a passive, effect. 2. Irritation (by chemical, mechanical, or electrical agents) of the peripheral end of a nerve containing vaso-motor fibres produces dilatation of the vessels of the corresponding member. 3. Irritation by means of an induced current of the peripheral end of a nerve containing vaso-motor fibres may cause constriction of the vessels of the corresponding members. (The author differs here from Goltz, who thinks that irritation always causes dilatation, sometimes, it is true, preceded by a very brief constriction.) 4. The different results obtained by irritation by induced currents are due to the intensity of the current,—a feeble current causing dilatation, a strong one constriction, of the vessels. (Legros and Onimus, in opposition to the author, deny that induced currents can produce aught else than constriction.) 5. There is only one species of vaso-motor nerves, comprising centrifugal and centripetal fibres. These may give rise—1, under the influence of violent excitation, to spasmodic contraction of the vessels; 2, if the excitation is less violent, to peristaltic and independent movements of the vessels. x.

Anthrax Abdominalis.—E. Masing (*Petersb. Med. Wochens.*, 1877, Nos. 9 and 10; abstract in *Centralbl. f. Med.*,

1877, p. 398) communicates several cases of this affection. The first three, which occurred in the St. Mary Magdalen Hospital, showed the pathological appearances of anthrax as observed by Bollinger in horses. Large nodules were scattered over the whole intestinal tract, particularly in the mesenteric glands; the spleen was not remarkably enlarged, but extremely soft; the blood was swarming with "rod bacteria and micrococci."

The fourth case, which, like the first three, occurred in a worker in horse-hair, recovered after experiencing the same symptoms as the other patients (one pustule on the jaw was already markedly eroded before his entrance to the hospital), but no baccillæ were found in his blood. In spite of this, Masing is inclined to assert a genuine recovery from anthrax in this case, on the ground of the generally characteristic clinical symptoms,—sudden attack with chill and feverishness, headache and great weakness, rapid decline of the fever, with clear intellect. In all the cases there was pain in the abdomen, spontaneous and upon pressure, meteorism, and ascites. In opposition to Bollinger, who asserts vomiting to be a constant symptom, Masing only observed one of his patients in the hospital vomit once; another was said to have vomited once before coming under observation. x.

Molluscum Contagiosum.—M. Vidal (*Le Progrès Méd.*, 1877, p. 450) communicates to the Société de Biologie the result of his researches made in connection with M. André on the pathological anatomy of molluscum contagiosum, or *acne variolifórme*.

This is an affection of the sebaceous glands, from the centre of which it originates. The entire gland is hypertrophied; the most characteristic lesion is a colloid degeneration of the cells. This affection should not be attributed to parasites; for only the demodex (and it rarely) is found. M. Vidal has attempted repeatedly to inoculate the affection, but has failed. M. Renaut regards the disease as a horny degeneration. x.

Splenotomy.—Billroth (*Wiener Med. Wochenschr.*, 1877, No. 5; abstract in *Centralblatt f. Med.*, 1877, p. 383) had under his care a woman 25 years of age, in whom in the course of two years the spleen had become enormously large and hard, with simultaneous development of leukæmia (one white to five red blood-corpuscles). The liver was also enlarged; there was no ascites. An incision was made beginning a handbreadth above the umbilicus and extending to the same distance below; the spleen was drawn out through this opening, and the gastro-lineal ligament doubly ligatured in several places with hempen thread; and cut. Two drainage-tubes were introduced, and the abdominal wound then sewn up. A few hours later, so much pressure was exercised during defecation upon the abdominal walls that a severe hemorrhage took place, to which the patient succumbed. Billroth thinks it would be desirable in a subsequent case, in order to avoid hemorrhage, to stitch a bit of the pancreas in with the ligature, as otherwise the ligature would be apt to tear out of the short peduncle. x.

Treatment of Syphilis by Means of Subcutaneous Injections of Calomel.—Forty-six cases of syphilis occurring in Rinecker's clinic were treated by calomel injections. Kölliker (*Centralbl. f. Chir.*, 1877, No. 7) praises this treatment as easily and conveniently carried out, and as particularly calculated for walking patients. The dose injected was .05 centig. in adults, .025 millig. to .03 centig. in children, suspended in ten times the amount of glycerine and thrown under the skin of the back and the lateral abdominal region. Ordinarily six injections were sufficient, made at intervals of four to six days. Many abscesses were produced, which, however, always healed kindly. Stomatitis was rarely observed. The influence of this method of treatment is particularly favorable in the inital sclerosis and the earlier exanthemata; favorable results are, however, attained in the gummatous forms. Pregnancy is no contra-indication. The pain caused by the injection is trifling when compared with that to which corrosive sublimate gives rise. This form of treatment is peculiarly indicated in cases where patients are liable to stomatitis and mercurial eruptions, or where there are numerous sores preventing inunction; also when the digestion is feeble, so that mercury cannot be given by the mouth. x.

Mr. Simon (*Chicago Medical Journal and Examiner*) states that he instantaneously cured a case of hiccough which had lasted twenty-six hours by the inhalation of three drops of nitrite of amyl.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, SEPTEMBER 29, 1877.

EDITORIAL.

FIRST FRUITS.

VERY early in the discussion of medical education we called attention to the absolute poverty of our foremost medical colleges, showing the cause to be their organization as marts for the sale of the right to practise rather than as institutions of learning, and expressing the belief that so soon as they were placed upon a proper basis endowments would be forthcoming. The Medical Department of the University of Pennsylvania, in its recent history, exemplifies the truth of these assertions. One of its professors, some years since, bestowed upon the University a large gift for the purpose of establishing a post-graduate course in sciences allied to medicine; but the medical department proper, in the hundred years of its existence under the old organization, had received no endowment and had accumulated no property beyond the building it occupied and the collections left to it by successive professors.

The new régime, not yet fairly inaugurated, already begins to bear rich fruit. Over sixty thousand dollars were, at the inception of the movement, subscribed as a guarantee fund to maintain the school during the transition-period. There are, however, to-day more matriculants than at the corresponding period last year: so that, whilst it is too early to draw positive conclusions, it seems probable that there will be no such falling-off of income as was expected. Recently, almost all of the subscribers to the guarantee fund have expressed their willingness to carry over to the endowment such portions of their subscriptions as should not be called in for current expenses, so that a large amount may possibly accrue to the permanent fund.

A separate gift of fifty thousand dollars for the endowment of the Rhea Barton Professorship of Surgery is also announced. Mrs. Dr. Barton, the donor, is the daughter of the late John Jacob Ridgway, who left a very large fortune to be divided between his two daughters. By the will of Dr. Rush, the husband of one of these ladies, one share of the estate founded the Ridgway Library, or the Ridgway Branch of the Philadelphia Library, and finds an expression on South Broad Street in an exceedingly beautiful and substantial granite building.

Dr. Rhea Barton, in whose honor the chair of Surgery has been endowed, died in 1871. He was the son of William Barton the brother of Dr. Benjamin Smith Barton, who held at successive periods of his life the chairs of Natural History and Botany, Materia Medica and Pharmacy, and Theory and Practice of Medicine, in the University. Dr. Rhea Barton himself was one of the most brilliant surgeons this city has ever produced: as an operator he is stated to have been ambidexter and wonderfully skilful.

His long connection—as "apprentice" and later as surgeon—with the Pennsylvania Hospital afforded an abundant field for his talents, and for many years his skill commanded the first place upon a brilliant surgical staff. He is perhaps most widely known by the fracture of the wrist called after him, and by the very useful bandage which he devised for the treatment of fractures of the lower jaw. But more important contributions to surgery than these were his bran dressing for compound fractures; section of the femur for bony anchylosis of the hip; and the cutting out of a wedge-shaped piece of bone for a similar condition of the knee. Dr. Barton's hip-operation has been variously modified by I. K. Rodgers, Post, and Sayre, of New York, but

lives in the recent practice introduced by Adams, of London, who performs it subcutaneously.

It is to commemorate the life and talents of this great surgeon that his widow has endowed the Surgical Chair in the oldest American medical school. And, whilst we congratulate the trustees of the University, the friends of higher medical education, and the future communities whose sick-rooms shall to all time feel the impulse of the gift, we do also congratulate Mrs. Barton on the wisdom of her choice. No monument could have been found more fitting for such a man, as no man more fitting for such a monument.

THE MEDICAL SERVICE AT THE CENTENNIAL.

WE cull from advanced sheets of the report of the Medical Director of the Centennial Exhibition a few facts of general interest.

There was an enormous percentage of very serious sickness among the Japanese exhibitors, due partly to the violent change in their mode of life and climatic surroundings, and largely to their mode of living. Their dwelling was so slightly built as to afford very little protection against either heat or cold; and in cold weather the occupants were crowded into rooms almost hermetically sealed, with no outlet whatever for the emanations from the body or for the fumes of the charcoal braziers which furnished the only means of heating. No wonder eighteen per cent. of them suffered from typhoid fever.

At the Centennial Hospital were treated 6463 cases of disease and injury. Although there were acres of moving machinery, and the steam railway carried around the grounds 3,784,142 passengers, there was no serious accident. There were only four deaths upon the grounds, no births, and but one abortion. These facts furnish strong proof of the admirable management of the Centennial authorities, of the modesty which keeps the American female secluded during the later months of pregnancy, and of her retentiveness during the earlier days of her sorrow.

Dr. Pepper, we think, makes out a very clear case that there were no foci of fever-poison on the grounds, and that the water-supply and drainage were very carefully attended to and were good.

CORRESPONDENCE.

NEW YORK, September 1, 1877.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR:—The most important matter of interest that there is to report in medical circles at present is the work of the extra corps of physicians appointed by the Board of Health to look after the children of the poor, and the effect of their ministrations upon the mortality of the city. The death-rate during July was given in my last letter, and it was then shown that after this work had been commenced it at once began to diminish. This decrease continued steadily as long as the corps were on duty, as is shown by the following figures:

Deaths in New York during week ending August 4, 650; during week ending August 11, 625; during week ending August 18, 553.

The number of deaths of children under five years of age reported during the week ending August 11 showed a decrease of no less than 100 from the week preceding; and the number reported during the week ending August 18 was still smaller than that. This diminished death-rate occurred notwithstanding the fact that the weather was considerably hotter after the work among the children was commenced than it had been before. During the week ending August 18, the physicians were discharged, and in the week following the number of deaths in the city began to increase again, running up to 596 (an increase of 43 over that of the preceding week). During the week ending September 1, the mortality has furthermore increased to 644.

The following is an extract from the report of Dr. E. H. Janes, Assistant Sanitary Superintendent, on the labors performed by the corps of special physicians:

"The services of these gentlemen—forty-seven in number—consisted in visiting from house to house the poor of the city, particularly those residing in crowded tenements, with a view to the relief of children suffering from sickness, especially of a diarrhœal character. Each visitor was assigned to a district, which he carefully canvassed, visiting each poor family in succession, imparting in every

instance such advice as appeared necessary, distributing small tracts containing, in the English and German languages, plain directions concerning the cure and prevention of diarrhœal diseases of infancy, and treating such cases of sickness as fell under his observation and were without medical care.

"In the capacity of sanitary missionaries, they visited during the above period (from July 18 to August 14 inclusive), with the aid of five members of the vaccinating corps, 23,566 houses and 131,573 families, treated 4719 cases of disease, and distributed 5128 excursion tickets for the Floating Hospital of St. John's Guild. As these appointments were not all made on the same day, the average number of days occupied in the service was twenty-seven, making an average of about ninety-four visits per day for each visitor." The report then goes on to say, "The greater portion of sickness was, of course, found in the crowded tenements of the most thickly populated wards,—a condition inseparable from this class of dwellings as at present occupied, for wherever there is density of population there is a proportionate amount of sickness, not only from the fact of there being large numbers of people within a given area, but overcrowding almost always implies poverty, want of proper food, neglect of cleanliness, increased amount of refuse, imperfect removal of excreta, and various other conditions, the effect of which is to poison the atmosphere and contribute largely to infant sickness and mortality. So long as it is necessary for the laboring-man to reside with his family near the scene of his daily labors, this condition will continue; and not until there are some means of cheap and rapid transit by which he can remove those dependent upon him away from crowded portions of the city, while he goes to and from his daily work, will the sanitary condition of such neighborhoods be materially and permanently improved."

Dr. Janes gives it as his opinion that this system of house-to-house visitation is attended with many advantages to the poor. "Depending on the various dispensaries for medical relief," he says, "either delicacy or indifference frequently induces them to neglect sending for a physician until disease is too far advanced to admit of further delay; and when at last application is made for medical relief, it may be at a late hour, the dispensary perhaps closed for the day, and another night must pass before the services of a doctor can be obtained, the disease meanwhile making progress, and the chances of recovery lessening in proportion to the delay. On the other hand," he continues, "by visiting from house to house, many cases of sickness are found in their incipiency, and by judicious and timely treatment much suffering is prevented, and, doubtless, many lives saved." This is not only according to common-sense theory, but it appears to be confirmed by our vital statistics during the included period; for during the week ending July 21 there were, among children under five years of age, 285 deaths from diarrhœal diseases, since which time there has been a gradual diminution until the week ending August 18, when the reported mortality among the same class of children and from the same class of diseases was 168. The same results followed a similar effort last year, when it was hinted by some that it might have been a mere coincidence. That a second coincidence should attend a second effort, without any relation of cause to effect, is, to say the least, hardly probable.

The report concludes as follows: "It would hardly be just to close this report without acknowledging the co-operation of St. John's Guild in liberally supplying us with excursion tickets for distribution, and of several druggists who have volunteered to supply medicines either gratuitously or for the mere cost of the drugs. It is the united testimony of the visiting corps, who took pains to revisit the children sent on the excursions of the Floating Hospital, that the results were almost without exception beneficial, and that the Guild is in this way doing a good work towards the relief of infant suffering."

The Board of Health was so much pleased with the results of the labors of the extra corps of physicians that it was with great reluctance that they discharged them; but the appropriation granted for the purpose had been all expended, and there was nothing else to be done. It appears that the great advantage of having such a corps is that incipient cases of diarrhœal disease are thus found out and relieved at a time when most ignorant mothers would never think of seeking medical advice at all, and that much saving of life thereby results. It is no doubt true that if the corps could have been kept on duty during the entire months of July and August the mortality of the city would be even more materially diminished. Still, the death-rate during the present summer has not been high for New York. In a recent report, Dr. Nagle, Deputy Register of Records, says, "The mortality for the past twelve weeks compares very favorably with the deaths in the corresponding period of last year. The total number of deaths reported to this bureau for the weeks ending June 2 to August 18 was 7069 against 8274 for the corresponding weeks of 1876. During these weeks of 1877, diarrhœal diseases caused 2137 deaths, of which 1962 were children under 5 years, against 2602 deaths from the same causes, of which 2455 were children under 5 years, in the corresponding weeks of 1876. 2752 children under 1 year, 3464 under 2 years, and 3974 under 5 years, were reported to have died between May 26 and August, 1877, against 3253 under 1, 4184 under 2, and 4779 under 5, reported to have died from May 27 to

August 19, 1876; or, in other words, there was a gain to human life during the past twelve weeks, compared with the corresponding weeks of 1876, of 1205.

But even when the mortality has been lowest during the past month it has represented an annual death-rate of 29.10 per 1000 persons living. This high death-rate is undoubtedly due in great measure to the tenement-house system, which is such a disgrace to New York, and which shows it in such an unfavorable light in comparison with most other cities. Dr. Nagh states that the annual death-rate per 1000 persons living of the estimated or enumerated population, according to the most recent weekly reports, of Philadelphia was 23.16; Brooklyn, 26.89; St. Louis, 10.67; Chicago, 26.82; Baltimore, 28.27; Boston, 25.55; Cincinnati, 16.76; New Orleans, 20.80; Cleveland, 24.33; Richmond, 28.61; Charleston, 33.98; Savannah, 18.41; Worcester, 32.70; Cambridge, 33.68; Springfield, 11.13. Foreign cities—London, 21.3; Liverpool, 24.5; Birmingham, 17.7; Manchester, 25; Glasgow, 20.2; Edinburgh, 19.3; Dublin, 24.3; Belfast, 22; Cork, 19; Brussels, 20.4; Antwerp, 22.1; Ghent, 29.1; Buda-Pesth, 44.5; Paris, 23.0; Rome, 23.9; Naples, 26.2; Turin, 24.4; Venice, 23.4; Berlin, 49.3; Munich, 35; Vienna, 21.9; Copenhagen, 21.6; Stockholm, 28; Christiania, 16.5; Amsterdam, 23; Rotterdam, 21.7; The Hague, 21; Calcutta, 19.3; Madras, 109.3; Berne, 27.1; St. Petersburg, 31.2.

During the past six weeks whooping-cough has been the most fatal of the contagious diseases, 85 deaths being reported to have occurred from it during this period; scarlatina was second in fatality, with 79 deaths; diphtheria third, with 64 deaths; typhoid fever fourth, with 35 deaths; measles fifth, with 29 deaths; and typhus fever sixth, with 4 deaths. There has not been a single case of smallpox reported in this city for over a month.

A case of so-called *Asiatic cholera* having occurred here, and having been noised about in the papers and then declared by the coroner's jury which investigated it to be nothing more than an ordinary case of cholera morbus, Dr. Edward C. Harwood, who attended the patient, has come out in a card, in which he states that he never used the word "Asiatic," but preferred simply to call the case by its right name,—cholera,—without the addition of a term which itself would require explanation. He adheres to the opinion that the case was one of genuine cholera, and says that he is still more convinced after seeing the results of the post-mortem and consulting the opinions of several eminent authorities on this disease. He refers, among others, to Drs. John C. Peters and J. Lewis Smith, and states that they are of the opinion that the patient died of cholera (and nothing else), such as we witness every year to the number of ten or twelve cases. He concludes as follows: "According to the rules for granting burial permits, there were sanitary reasons why this case should have been promptly reported to the Board of Health; but there were no judicial reasons why there should have been a coroner's investigation. The fact that my friend the deputy coroner—Dr. Cushman—made a post-mortem and certified that the case was one of cholera morbus, did not make it so in the general acceptation of the term as understood by American physicians. This is one of those differences so liable to occur at any time among medical men. This class of cases occupies a position about midway between cholera morbus and Asiatic cholera, and they are very interesting and instructive. They should be carefully studied and reported. Unlike Asiatic cholera, they do not appear to be propagated by fomites; nevertheless, they should be considered as notes of warning by the wayside,—not necessarily causes for public alarm. With proper vigilance on the part of our Board of Health, there can be but little opportunity for an invasion by true Asiatic cholera."

It is doubtless true that a large proportion of the cases reported as *hydrophobia* are spurious; but there seems to be no room for doubting that one which recently occurred here in a child four and a half years of age was genuine in its character. The bite was received about nine weeks before the disease set in, and immediately afterwards the child's mother took him to a druggist, who cauterized and dressed the wounds. They soon healed up, the boy became apparently perfectly well, and nothing more was thought of the matter until Thursday, August 2, when symptoms of hydrophobia became developed. In order to test the case and see whether it really was one of hydrophobia, the attending physician—Dr. Roediger—sat down on the bed where the child lay, and had a basin of water brought and placed behind him, out of the patient's sight. He then disturbed the water with his hand, and when the boy heard the sound he started up in a frightened manner, and no sooner caught sight of the water than he uttered a cry and went off into a prolonged series of convulsions. The sight and taste of whisky produced the same effect as water. Hypodermic injections of chloral and morphia were resorted to at intervals, and, though at first they produced no appreciable result, they afterwards seemed to control the violence of the convulsions to a certain extent. Drs. Janeway, W. De Forest Day, Hammond, Little, Warren, and others, were called in consultation, and they were one and all of the opinion that it was a clear case of hydrophobia. The child died about nine o'clock on the evening of the third day from the commencement of the attack. Dr. Roediger stated that the patient knew nothing of the disease from which he was suffering, and that he thought him far too young to have his

nervous system affected by the imagination, since it takes an amount of reasoning power not possessed by such young children to be thus impressed by fears of the consequences of a bite from a mad dog. He was not sure whether the dog had been mad or not, but was of opinion that the bite of a dog temporarily infuriated was capable of producing hydrophobia under certain circumstances.

A case of considerable interest to our homœopathic brethren is now before the courts. A lady has brought a suit against the proprietor of the "American Homœopathic Pharmacy" on Broadway, to recover $5000 damages, on the ground that the defendant made a mistake in compounding a prescription. The complaint alleges that in May last the plaintiff took to this pharmacy a prescription calling for half an ounce of the second trituration of atropine. The usual custom with druggists and physicians is said to be to use the centesimal scale in prescriptions of this sort when no mention is made of the decimal scale, according to which the strength of the quantity prescribed is greatly increased. Ten grains was the dose required by the prescription. This amount, according to the centesimal scale, would contain $\frac{1}{1000}$ of one grain of pure atropia, but by the decimal scale $\frac{1}{10}$ of a grain of pure atropia. The plaintiff says that she took the dose prescribed and at once became violently sick, and has been greatly injured thereby. She has expended $200 for medical attendance, and her sight is seriously affected. The reply is, that the medicine was in accordance with the prescription, which called for the "second trituration." It is alleged by the druggist that this phrase may be understood to mean not the thousandth, but the tenth, of a grain of the drug. It would seem as if there was some need of reformation in the manner in which active poisons are handled in homœopathic practice.

The voluminous report of the Commissioners of Charities and Correction for the year 1876 was published about a month ago, and from it we learn that the number of patients treated at the various hospitals under their care during the year was 21,584, of whom 16,681 were discharged and 2227 died. The following figures from the larger hospitals will doubtless afford the disciples of Hahnemann abundant grounds for self-congratulation and no little crowing over their extraordinary success; but the explanation of the small rate of mortality at the Homœopathic Hospital is simply that a much larger proportion of chronic cases was treated there than at the other hospitals; and the same fact also explains the larger proportion of deaths at Bellevue than at Charity Hospital.

Hospital.	Cases treated.	Rate of mortality.
Bellevue . . .	5685 . . .	12½ per cent.
Charity	8621 . . .	8⅛ per cent.
Homœopathic .	3077 . . .	6$\frac{1}{10}$ per cent.

At the Morgue 153 bodies were received during the year, of which 72 were recognized.

A delegation of medical students from one of the colleges is said to have called on Mayor Ely a few days ago to obtain permission to take some dogs from the pound for experiments in vivisection; but the mayor, doubtless with the fear of Mr. Bergh before his eyes, refused to grant their request.

The following remarkable notice, according to the newspaper reporters, was recently seen posted upon the hospital tent at Creedmoor during the target practice of a Brooklyn regiment: "No person allowed to enter this tent except the surgeon and those that are taken ill by permission of the surgeon."

Two prominent New York physicians have died during the past month, one at an advanced age,—Dr. Joseph Worster,—one of the oldest Fellows of the Academy of Medicine, and the other in the flower of his prime,—Dr. A. B. Crosby, the genial and talented Professor of Anatomy in Bellevue College. Dr. Joseph D. Bryant has been appointed to fill the place of the latter temporarily. Dr. Nathan Bozeman, who has been absent so many years in Europe, has recently returned to New York and hung up his shingle next door to Dr. T. G. Thomas, on Fifth Avenue.

P. Brynberg Porter.

PROCEEDINGS OF SOCIETIES.

AMERICAN DERMATOLOGICAL ASSOCIATION.

The first annual meeting of the American Dermatological Association was held at Niagara Falls on September 4, 5, and 6.

The opening address by the President, Dr. Jas. C. White, Professor of Dermatology in Harvard University, comprised a review of the progress of dermatology in the United States. Beginning twenty-five years ago with the advent of a few earnest students of the Vienna School, who worked unrecognized and almost unnoticed by the general profession, the progress of dermatology as a specialty, for a long time delayed, has within the last few years become much more decided, and its prospects for the future are most encouraging. There are at present Professors and Clinical Professors of Dermatology in several of the more prominent medical schools of the country, while almost every school of standing has made provision for special instruction in this branch of medicine. The relations of the dermatologist to the general practitioner were also touched upon in the course of the address, which was a most interesting and valuable contribution to the history of medicine in the United States.

Dr. Bulkley, of New York, read a paper "*On the eczema marginatum of Hebra* (*tinea*

tricophytina cruris), *as observed in America*," giving notes of a number of cases, with treatment. This curious disease, first described by Hebra as an independent affection, is more generally classed as a form of ringworm (tinea circinata or tricophytina). It occurs usually upon the contiguous parts of the scrotum and thigh, and is liable to be confounded with eczema and erythema of the same locality. The treatment recommended by Dr. Bulkley comprised the use of parasiticides, particularly sulphurous acid employed in various degrees of dilution. The disease is sometimes very rebellious to treatment, and is apt to relapse.

The discussion which followed the reading of this paper was taken part in by Drs. Van Harlingen, Heitzmann, Duhring, White, and others; some of Dr. Bulkley's propositions not being coincided in by other members. Dr. Heitzmann did not think sulphurous acid necessary; he had frequently seen the disease cured within six days by the use of Wilkinson's ointment.*

Dr. Duhring said he had found the disease less severe in this country than abroad, and usually found washes, either of dilute sulphurous acid or sulphite of sodium, sufficient to cure the affection. A paper by Dr. Dyce Duckworth, of London, "*On the treatment of severe bed-sores*," was read by the Secretary. Though an interesting and practical paper, this contained no new facts, and the treatment recommended was that ordinarily taught in the medical schools of this country and practised in most hospitals. The paper of Dr. R. W. Taylor, of New York, "*On the xeroderma of Hebra*," was an exhaustive essay upon this exceedingly rare form of disease, and included notes of seven cases which had come under his observation, being more than the total number before recorded.

In addition to the contributions mentioned, the following papers were read before the Association or presented by title. Dr. Arthur Van Harlingen, of Philadelphia, "*The pathology of seborrhœa*." Dr. Robert Campbell, of New York, "*A case of true prurigo*" (of Hebra). Dr. James Nevins Hyde, of Chicago, "*On the immunity of certain mothers of children affected with hereditary syphilis*." Dr. Wm. Hardaway, of St. Louis, "*The lymphatic theory of syphilitic infection, with a new view of the relation between the chancre and chancroid; and suggestions for the radical cure of syphilis*." Dr. Heitzmann, of New York, "*On the relation of impetigo herpetiformis to pemphigus*." Dr. Yandell, of Louisville, "*The etiology of cutaneous diseases*." Dr. Duhring, of Philadelphia, "*Case of an undescribed form of fragilitas crinium*." Dr. Bulkley, of New York, "*Two cases of very late hereditary syphilis*." Dr. Edward Wigglesworth, of Boston, "*Faulty innervation as a factor in skin disease, and auto-inoculation of vegetable parasites, and their non-identity*." Dr. A. R. Robinson, of New York, "*The pathological histology of psoriasis*." Dr. R. W. Taylor, of New York, "*Affections of the testicle in hereditary syphilis*."

The Association adjourned to meet in Saratoga on the last Tuesday in August, 1878. The officers of the Association for the ensuing year are as follows: President, Prof. Jas. C. White, M.D., of Boston; Vice-Presidents, Drs. Carl Heitzmann and L. Duncan Bulkley, of New York; Secretary, Dr. R. W. Taylor, of New York; Treasurer, Dr. Atkinson, of Baltimore.

* Hebra's modification of Wilkinson's ointment:
℞ Sulphuris sublimati,
Olei cadini, āā ʒiij;
Cretæ preparatæ, ʒii;
Saponis viridis,
Adipis, āā ʒj.—M. Ft. ung.

REVIEWS AND BOOK NOTICES.

PRINCIPLES OF THEORETICAL CHEMISTRY. By PROF. IRA REMSEN, M.D. 231 pages. Philadelphia, Henry C. Lea.

We welcome this work of Prof. Remsen as the first of its kind in America, and, indeed, the second, if our memory fails not, in the English language. Prof. Tilden, of Bristol, England, edited a very similar book some time since. The demand for such a work indicates a growing interest in theoretical chemistry, which, it must be confessed, has been sadly neglected in this country. This interest can only come of an earnest desire after a more thorough understanding of the science,—not so much only of it as may conduce to the filling of the pockets.

The first part of the work is devoted to a "General Description of Atoms and Molecules." With the exception of a few introductory remarks and definitions, it is a good and, in accordance with the scope of the work, an exhaustive discussion of the methods of arriving at a correct determination of the atomic weights. In this Prof. Remsen treats progressively of nearly all the general theoretical chemical questions of importance as concisely and carefully as can be expected, at the same time pointing out their important bearing on the question of the true atomic weights.

The second part treats of the "Constitution or Structure of Chemical Compounds." A thorough perusal of this part will, perhaps, bring many chemists of America to a correct understanding of what is intended to be expressed by *structural formulas*. If this be accomplished. Prof. Remsen's book will have done a great and good work. The nucleated or graphic formulas which the author has adopted are, perhaps, the best fitted to convey to the minds of beginners in the theoretical study of this science the known facts in regard to the constitution of chemical com-

pounds. After a thorough mastery of this process of reasoning the inexhaustibleness of the subject will be, perhaps for the first time, fully appreciated by many.

The work, within the limits indicated in the preface, meets the object of the author fully, except in so far as it may have been intended for beginners. For them the style, which resembles somewhat the German, is too involved for a ready comprehension of the logical treatment of the subject-matter. It seems to us that a short summary, sometimes given, as each position in the argument is reached, would aid much in comprehending the bearing of the whole, especially as so much attention is paid to the repetition of definitions.

The second part can scarcely fail to meet the approbation of advanced students; while in the first part the too labored effort at perspicuity would, to many, seem to defeat its object, and really tend to obscurity.

Perhaps our author assumes too much in asserting "that they [the ideas advanced in the work before us] are held by nearly all the working chemists of the day." We would venture to assert that they agree fully only on fundamental principles; while in theoretical chemistry each has his own hypotheses to explain the points at issue, at the same time not denying the apparent validity of others. Considering the uncertainty in which almost every theoretical chemical question is involved, because of the different and yet seemingly well-supported hypotheses adduced, it would be but just to give, if a book is to be written at the present time, the various ideas advanced by the leading chemists. Lothar Mayer, among recent Continental writers who give summaries of the best-supported theories, might, in our opinion, be mentioned as dealing correctly with these much-mooted questions.

We earnestly recommend this work of Prof. Remsen, and hope soon to see a still more extended treatise from the same author on the important subject of modern theories of chemistry. GRIFFITH E. ABBOTT.

HANDBOOK FOR HOSPITAL VISITORS. No. 13, State Charities Aid Association. New York, G. P. Putnam's Sons.

We do not know who is the author of this book, but we do know that the book itself is worthy of the highest praise. As a manual not only for hospital inspectors, but also for all those persons who are connected with the running of such institutions or who desire to know how hospitals should be managed, we commend it most earnestly. Every hospital steward, superintendent, and matron, every hospital doctor or hospital manager in the land, should read it carefully. Its study should be a part of the regular course in every institution where nurses are trained. A small, inexpensive book, there can be no excuse for not purchasing it.

GLEANINGS FROM EXCHANGES.

ANTISEPTIC TREATMENT (*Boston Med. and Surg. Journ.*, August 30, 1877).—Dr. Robert White gives at some length the result of his observation of Lister's antiseptic treatment during a residence of some months in Edinburgh. In regard to its effect in the treatment of abscess he writes as follows:

The treatment of abscesses by the antiseptic method gives very satisfactory results. Mr. Lister and others believe that the suppuration in an abscess before it is opened is maintained by the stimulation of the pyogenic membrane by the pent-up pus, of which a good evidence is the force with which the pus escapes when the abscess is opened, and afterwards by the admission of septic germs into the cavity, causing putrefaction of the remaining pus and stimulation of the pyogenic membrane to increased secretion, which is continued for a long time under the ordinary treatment, by poultices, water-dressings, etc. In large abscesses this constant formation of pus gives rise to serious constitutional symptoms, which are avoided if the abscess be opened antiseptically, and if all the pus be pressed out at the time of incision, none will be found at the next dressing; as a matter of fact, however, a few drops of pus that have remained in the abscess will be found on the next dressings, which will be succeeded by a thin serous discharge that steadily diminishes, the abscess healing fast. It is not only in so-called cold abscesses that this favorable progress is witnessed; it is still more strikingly seen in abscesses connected with bone caries. Late researches tend to establish the theory that caries is the result rather than the cause of suppuration, and that if the accumulated pus be removed, without the supervention of the irritant action set up by putrefaction, the diseased bone is placed under the most favorable conditions possible for repair. The rapidity with which large psoas and spinal abscesses will heal when treated antiseptically could hardly be realized by any one who has not seen such cases.

He thus briefly reviews the advantages of the system in the treatment of wounds:

1. The individual wounds so treated are placed in the most favorable condition possible for rapid healing by the exclusion of the elements of putrefaction, with the consequent irritation and suppuration; and the chances of the infection of the patient with erysipelas, hospital gangrene, pyæmia, and septicæmia from his wound are infinitely lessened.

2. Its influence in preventing the occurrence of the above-named hospital diseases where patients are congregated together, as in a ward, by checking the development of the *contagium* of these diseases in wounds which would surely be putrefactive under other treatment, and the infection by it of other wounds in the vicinity.

It must be borne in mind that the simple application of an antiseptic to the wound does not secure this result. On the contrary, it acts injuriously by delaying the healing, but a treatment is required which will prevent putrefaction without the contact of an irritant agent to the injured tissues; and there is little doubt that those who use Lister's system understandingly, and with a proper attention to necessary but not difficult details, will find that the results will exceed their anticipations.

Remedy for Pain in Carcinoma of the Cervix Uteri (*Boston Med. and Surg. Journ.*, August 23, 1877).—In many cases the following method of treatment has proved very beneficial for the excessive pain in cancer of the uterus, vagina, and rectum. In cases of medullary carcinoma and progressive epithelioma of the uterus, powdered ergot in doses of thirty grains every six hours has proved very beneficial against the terrible pain, for, as a rule, when there is an increase in the amount of blood flowing from the diseased tissue, the pain is much diminished, but in patients who are very much reduced already by the loss of blood, this treatment cannot be carried out.

Another excellent remedy is croton chloral hydrate. This diminishes the pain, not in the cancer, but the reflex pain in the back, thighs, and vulva. As local treatment, it is recommended to place little pieces of cotton-wool, soaked in strong carbolic acid, about the cervix and diseased tissue; this should be done through a speculum; then to syringe out the vagina, morning and evening, with a solution of what is called glycerine carbolic acid, thirty grains in a pint of water.

Ablation of the Body of the Uterus in Cases of Irreducible Inversion by External Hysterotomy (*The Clinic*, September 1, 1877).—M. Donné (*Archives de Gynécologie*), in a recent communication to the Academy, formulates the following conclusions:

1. External hysterotomy is an extreme surgical resource, but precious for cases of irreducible inversion which threaten immediately the life of the patient.

2. This operation does not furnish a greater mortality than that of the greater number of grave operations.

3. In the actual state of science it ought to be made preferably by the ligature, bearing in mind the perfection attained by this method.

4. For the first months of an inversion,—even the first year, as far as possible,—repeated tentative efforts at reduction, at lactation which generally suppresses the hemorrhages, and all sorts of palliative methods, should be fairly tried.

The operation ought to be reserved for cases recognized as irreducible, and for the period remote from the commencement of the malady, when involution has completely taken place, and the neighboring organs have undergone changes rendering the risk of peritonitis much less, this being very important.

Apomorphia as an Expectorant (*The Clinic*, September 1, 1877).—Dr. Moritz Wertner records (*Wiener Med. Presse*) his experience with this agent in a large number of cases. He employed it with both adults and children in quite minute ($\frac{1}{16}$ grain) doses, frequently repeated. He considers it a perfectly safe remedy, as he has never observed any ill effects follow its administration.

Resection of the Œsophagus (*The Clinic*, September 1, 1877).—We find the following preliminary report of a new operation by Prof. Czerny, of Heidelberg, in the *Centralblatt für Chirurgie*. An annular carcinoma, rendering the œsophagus impassable, even for a small tube, was removed on May 2 from a woman 51 years of age. The length of the piece removed was six centimetres. The entire thickness of the œsophagus was taken away, and the lower extremity was then fastened in the wound made in the neck. On June 6 the patient was discharged well.

Signs by which Phthisis is recognized in its Earliest Stages without the Aid of Physical Examination of the Chest (*The Medical Record*, September 1, 1877).

1. Retraction of the skin over the cheeks.

2. Cerulean hue of the sclerotic, due to anæmia of the conjunctiva.

In bronchitis and emphysema there is conjunctiva, and also in the later stages of phthisis.

3. Atrophy of the lips, of the ears, and a thin pinched appearance of the nose. Whenever the skin closely covers cartilages, as in the ears and nose, a showing through, as it were, of the cartilaginous framework is one of the earliest signs of loss of flesh.

4. Pallor of the cheeks and face as compared with each other and with the malar surfaces.

5. Dilatation of the nostril upon the affected side. This is the case in all pulmonary affections, but especially in the earliest stages of phthisis.

6. The respiration is invariably accelerated, and the disturbance affects expiration as well as inspiration. In certain nervous disturbances the respiration is accelerated, but it is the inspiration only which is at fault.

7. Sinking of the clavicle more upon the affected side than upon the opposite, and giving the appearance of having a very long neck.

8. Great hyperæmia of the pillar of the fauces, present long before the pulmonary disease manifests itself, and continuing until pus is expectorated. When purulent expectoration is established, decomposed pus irritates the throat, and then the other parts usually become hyperæmic.

9. Intense congestion of the throat, early hoarseness, and vomiting are unfavorable symptoms, and indicate enlargement of the

bronchial glands. This vomiting is caused by pressure upon the pneumogastric by the enlarged glands. A large proportion of phthisis cases will tell of having had sore throat for a number of years previous to the development of any chest symptoms.

SALICYLIC ACID AND SALICYLATE OF SODA IN THE TREATMENT OF NEURALGIA (*The Medical Record*, September 1, 1877).—Dr. Descroizilles has employed salicylic acid and salicylate of soda in seven cases of neuralgia, with satisfactory results. The number of cases is too small to permit a judgment to be formed from them of the therapeutic value of the two drugs, but they demonstrate the advantages which the salt possesses over the acid in the treatment of this disease. All the cases were cured, but in the three cases in which the acid was administered it produced a certain amount of deafness. In two of these cases it also exerted an energetic irritant action on the mucous membranes of the digestive and respiratory tracts, and in the other it caused vertigo, general weakness, and well-marked hebetude. The salt did not exert any injurious action either on the mucous membranes or on the nervous system. It was not necessary to give it in as large doses as the acid, and the cure was rapidly effected. From one to five grammes of the salt were given daily, while in one of the cases treated by the acid as much as seven grammes were given in one day. In all the cases the treatment was begun with small doses (one to two grammes), which were increased by a gramme a day until the desired effect was obtained.

SYPHILITIC FATHERS AND HEALTHY CHILDREN (*The Medical Record*, September 1, 1877).—Dr. Güntz, of Dresden, reports six cases in which the fathers of healthy children were the subjects of latent syphilis. In each of these cases at least two years had elapsed between the latest manifestations of syphilis and marriage. In several cases the first child was syphilitic, the second healthy. In all of the cases, within a few years after the birth of their children, the deeper syphilitic lesions manifested themselves in the persons of the fathers, all of whom had had good reasons—among others, the birth of healthy children—to suppose that the disease was eliminated from their system.

NERVE-STRETCHING (*The Lancet*, September 1, 1877).—So much interest is just now attached to the subject of nerve-stretching, especially in its therapeutic application, that we give the following résumé in full:

The operation of nerve-stretching adopted in this country by Callender for the relief of neuralgia, and abroad by Billroth, Nussbaum, and others, in cases of "reflex epilepsy," has recently received further attention on the Continent. Four cases are given in abstract in the last number of M. Hayem's *Revue des Sciences Médicales* (p. 285), and are worthy of reproduction. Two were cases of neuralgia following cicatrization of wounds. The first recorded was a patient of Paul Vogt's, who had wounded the inner aspect of her right forearm by falling upon a cutting instrument. After the wound had healed, there was much impaired movement of the ring and little fingers, attributed to involvement of the flexor tendons in the cicatrix; and at the same time the seat of the scar was exquisitely sensitive, especially at one point, which, on being touched, gave rise to acute pain, radiating into the fingers named. Every movement of the hand was painful; and at first the pain was thought to be due to the presence of a foreign body in the wound. An exploratory incision failed, however, in discovering any such cause for the irritation of the nerve, and the patient's condition remained much the same until, about a year after, Paul Vogt dissected out the ulnar nerve from the cicatricial tissue surrounding it, and, raising it out of its bed, practised stretching of the nerve in both directions. The operation was immediately followed by the disappearance of the neuralgia, and in a few weeks the movements of the hand and fingers were re-established. There was no recurrence of the symptoms three years after the operation. The second case is related by Petersen, in which an extensive wound of the upper and inner part of the left leg was followed, on healing, by very severe attacks of deep-seated pain, again suggestive of the presence of some undetected fragment of metal with which the wound was inflicted. In this case also no foreign body was found on cutting down upon the injured limb; but Petersen ascertained that the posterior tibial nerve was very sensitive, and that there was some extravasated blood in its sheath. Stretching was practised, and with the same fortunate result as in Vogt's case. Two other cases are recorded, both of tetanus. One was a patient of Paul Vogt's, a man sixty-three years of age, who was attacked by tetanus thirteen days after suffering a contused wound of the palm of the right hand. Large doses of opium gave no relief. The scar in the hand was not painful, nor was there any tenderness over the course of the nerves of the arm and forearm, but in the neck the region of the brachial plexus was very tender, and compression in this part induced tetanic spasms. Vogt decided to try the effects of stretching the nerves of the plexus, and with the most happy result. The nerves were exposed in the posterior triangle by an incision along the anterior border of the trapezius three finger-breadths above the clavicle, and their sheath, which appeared inflamed, being laid freely open, each nerve was raised and forcibly stretched. The symptoms of tetanus subsided, and the case terminated in complete cure. The other case was not so successful. The patient, a man forty-five years of age, was attacked with tetanus after impaction of a splinter beneath the toe-nail and exposure

to cold. On the eighth day, after abortive treatment by chloral, the surgeon, Kocher, proceeded to stretch the posterior tibial nerve behind the malleolus, and also the popliteal nerve. The former appeared much injected and thickened, but the popliteal seemed normal. Some diminution in the symptoms followed for a short time, but the patient soon succumbed. The sciatic nerve exhibited several points of injection.

The Cardio-Vascular Phenomena of Epilepsy (*The Lancet*, August 25, 1877).—The cardio-vascular phenomena of epilepsy have never, so far as we are aware, been fully investigated. Certain points, such as the condition of the pulse during and after an epileptic fit, and also the changes observed in the retinal vessels, have received some attention, though the statements which have been made as to the latter are contradictory,—some stating that vaso-motor spasmodic contraction is the condition observed, others that turgescence accompanies or follows the fit. And from these observations various theoretical conclusions as to the nature and treatment of epilepsy have been drawn.

Some important experiments have been recently made upon this subject by Dr. Magnan, whose observations on artificial epilepsy are well known. The experiments were made on dogs in which artificial epilepsy had been induced by the injection of absinthe, the epilepsy thus produced being, as M. Magnan has shown, in every respect like ordinary epilepsy as to the phenomena observed. His object was to ascertain the condition of the arterial pressure during the fit, and then to compare the pulse and arterial tension with the muscular contractions. M. Magnan points out that the fatal result which sometimes occurs during an epileptic fit may be due to the heart, either by tetanization during the tonic spasm, or by syncope during the clonic period and lowered arterial pressure. The former mode of death would be analogous to that in digitalis-poisoning, but the short duration of the contracted condition makes it probable that such a result would be extremely rare. These experiments raise some very interesting speculations as to the causation of the phenomena of an epileptic fit, which would be out of place here. But it would be worth while to ascertain whether vaso-motor spasm has not something to do with the increased arterial pressure in "natural," if not in artificial, epilepsy.

Cartilaginous Growths of the Nose (*The Lancet*, August 25, 1877).—Dr. Morell Mackenzie's lecture on cartilaginous nasal growths may be condensed as follows:

Etiology.—These tumors are not very often met with in the nose, but, when they do occur, most frequently affect the young. Originating in some obscure local diversion of nutrition, they are apparently idiopathic formations, and no external causes can be referred to as exercising any influence over their production.

Symptoms.—The usual mechanical symptoms of nasal obstruction accompany cartilaginous tumors. As they advance in size, there is also more or less pain, and often considerable discharge. Extreme deformity of the countenance is generally attendant on this class of growths, as most of them are entirely incapable of yielding in the least to the pressure of surrounding structures, and they sometimes enlarge with great rapidity. They are characteristically globular in shape, and take their origin most frequently from the cartilaginous septum, but also very often from the frontal and ethmoidal cells. In the latter case the upper part of the tumor is usually in contact with the under surface of the brain, thus rendering operative interference impossible.

Pathology.—Cartilaginous tumors vary much in consistence, being occasionally quite soft, but, as a rule, tolerably hard. Microscopically they display considerable diversity of structure, but more nearly approach that of fœtal cartilage. They are very liable to undergo true ossification, whilst, on the other hand, they have also been known to degenerate into sarcoma.

Diagnosis.—This must be ascertained by attention to general symptoms, and by a process of exclusion. They are never pedunculated, seldom ulcerated, and probably present more smoothness of surface, and are more symmetrically globular, than any other intranasal growths.

Prognosis.—Those cases in which the tumor springs from the base of the skull probably always lead to a fatal result. When the growth takes origin from the cartilaginous septum or walls of the nasal fossæ, it may be removed in the usual way; but even in these instances, if it has already attained to any considerable size, there is a great likelihood that denudation of the under surface of the brain has taken place.

Treatment.—No special method of procedure is called for in treating this class of tumors, and they must be removed, when practicable, by the aid of some of the measures already described. One of the characteristics of cartilaginous growths is to cause *absorption* more readily than *displacement* of the surrounding bones. On this account they easily penetrate the cranium, and this occurrence excludes, of course, the advisability of any undertaking for the extraction of the tumor.

Palliative Measures against Writer's Cramp (*The Medical Press and Circular*, August 1, 1877).—M. Dalby has employed with success on a patient suffering from this troublesome affection, Esmarch's bandage. He applies it to the forearm, and says he thus furnishes a point of support to the muscles, and prevents them from contracting.

M. Paul, for the same purpose, fixes in the ball of the hand a ball of caoutchouc, and says that thus the patient can easily write. These remedies seem simple, and their value may be easily tested.

MISCELLANY.

We make the following extract from *The Lancet* of August 25, 1877, because it is so peculiarly applicable to a recent contemplated action on the part of one of our local boards:

"*Guardians and Surgical Operations in Workhouses.*—A small minority of the guardians of the poor in the union of Portsea Island have had ere now considerable success in rendering the post of medical officer to their workhouse wellnigh untenable. One of the most energetic of this minority, at a recent meeting of the board, moved a resolution, of which he had given notice, to the effect that whenever the medical officer of the workhouse proposes to perform a surgical operation on an inmate, he shall give sufficient notice to the clerk, so that the latter may inform each guardian of the proposed operation, and that the consent of the guardians shall be obtained before the performance of the operation. This resolution contained a further instruction that in every case in which the death of an inmate follows shortly after the performance of an operation, notice of the same shall be given to the guardians. It is satisfactory to find that this resolution, besides its proposer and seconder, found no support among the Portsmouth guardians, one of whom pointed out that they had no more right to interfere in the case of an operation than they had to call upon the chaplain to submit his sermons to the board previously to preaching them. It is to be hoped there is no board of guardians a majority of which would be willing to accept the responsibility of discussing and deciding upon the proposal of a medical officer to perform an operation upon an in-door pauper. Should such a board of guardians, however, exist, confidence may be felt that the Local Government Board would not confirm a resolution to give guardians the power to hamper medical officers in the performance of their duties, in a manner as dangerous to the inmates of workhouse infirmaries as it would be derogatory to the medical officers themselves."

The death of Dr. Abram Sayer occurred at Ann Arbor, Michigan, August 6, at the age of 67 years. Dr. Sayer was not only a successful medical teacher and practitioner, but also an accomplished naturalist. From 1842 to 1855 he was Professor of Botany and Zoology in the University of Michigan, having previously had charge of the botanical and zoological department of the Michigan State Geological Survey. In 1848 he was appointed Professor of the Theory and Practice of Medicine in the medical department of the University, and in 1850 was transferred to the chair of Obstetrics and Diseases of Women and Children, which he held until 1875, when ill health forced his resignation.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM SEPTEMBER 9 TO SEPTEMBER 22, 1877, INCLUSIVE.

Murray, R., Colonel and Surgeon.—To be regarded as temporarily awaiting orders to date from his being relieved from charge of the Medical Purveying Depot at San Francisco. S. O. 192, A. G. O., September 10, 1877.

McParlin, Thos. A., Major and Surgeon.—Relieved from duty in Department of the Missouri, and to report in person to the Surgeon-General. S. O. 193, A. G. O., September 12, 1877.

Alden, C. H., Major and Surgeon.—Relieved from duty in Department of the Columbia, to proceed to New York City, and, on arrival, report by letter to the Surgeon-General. S. O. 193, c. s., A. G. O.

Happersett, J. C. G., Major and Surgeon.—Relieved from duty at Wilkesbarre, Pa., and to return, temporarily, to his proper station, Fort Hamilton, N. Y. H. S. O. 216, Division of the Atlantic, September 18, 1877.

Waters, W. E., Captain and Assistant-Surgeon.—Relieved from duty at Mauch Chunk, Pa., and to return to his proper station, Fort Columbus, N. Y. H. S. O. 211, Division of the Atlantic, September 13, 1877.

De Graw, C. S., Captain and Assistant-Surgeon.—Relieved from duty at Carlisle Barracks, Pa., and to return to his proper station, Oglethorpe Barracks, Savannah, Ga., and there await further orders. S. O. 216, c. s., Division of the Atlantic.

Bentley, E., Captain and Assistant-Surgeon.—Relieved from duty at Scranton, Pa., and to return to his station, Little Rock Barracks, Ark. S. O. 209, Division of the Atlantic, September 11, 1877.

Kimball, J. P., Captain and Assistant-Surgeon.—Assigned to duty at Wilkesbarre, Pa., relieving Surgeon Happersett. S. O. 216, c. s., Division of the Atlantic.

Cowdrey, S. G., Captain and Assistant-Surgeon.—Relieved from duty at Wilkesbarre, Pa., and to report by letter to Commanding General, Department of the Gulf, for orders. S. O. 211, c. s., Division of the Atlantic.

Dickson, J. M., Captain and Assistant-Surgeon.—To proceed to Jackson Barracks, La., close his money and property accounts at that station, and return with least delay practicable to his post at Indianapolis, Ind. S. O. 216, c. s., Division of the Atlantic.

Ewen, C., Captain and Assistant-Surgeon.—Relieved from duty at Easton, Pa., and assigned to duty with U. S. Troops at Scranton, Pa. S. O. 216, c. s., Division of the Atlantic.

Moseley, E. B., First-Lieutenant and Assistant-Surgeon.—Relieved from duty at Scranton, Pa., and to report by letter to Commanding General, Department of the Gulf, for orders. S. O. 211, c. s., Division of the Atlantic.

Skinner, J. O., First-Lieutenant and Assistant-Surgeon.—Relieved from duty at Reading, Pa., and assigned to temporary duty at Carlisle Barracks, Pa. S. O. 216, c. s., Division of the Atlantic.

Crampton, L. W., First-Lieutenant and Assistant-Surgeon.—Relieved from duty at Mauch Chunk, Pa., and to report by letter to Commanding General, Department of the Gulf, for orders. S. O. 211, c. s., Division of the Atlantic.

Taylor, M. E., First-Lieutenant and Assistant-Surgeon.—Relieved from duty at Wilkesbarre, Pa., and to report by letter to Commanding General, Department of the Gulf, for orders. S. O. 211, c. s., Division of the Atlantic.

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